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Monticello Mill Tailings Site

**Site Characterization Report for
Monticello Peripheral Properties
MP-00181-OT, Phases IV and IVA,
and MP-00211-VL, Phases I and II**

January 1996



**U.S. Department of Energy
Grand Junction Projects Office**

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Albuquerque Operations Office
Grand Junction Projects Office

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19155

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EXECUTIVE SUMMARY

The U.S. Department of Energy Grand Junction Projects Office (DOE-GJPO) conducted site characterization activities at Monticello peripheral properties MP-00181-OT, Phases IV and IVA, and MP-00211-VL, Phases I and II, in October, 1995. These peripheral properties are located at the Monticello Mill Tailings Site, in the city of Monticello, San Juan County, Utah. The purpose of the site characterization is to determine if Comprehensive Environmental Response Compensation and Liability Act (CERCLA) hazardous substances (other than radium-226) have been released at these properties, and to determine if remediation of media contaminated with hazardous substances is warranted.

Three locations suspected to be contaminated with suspect hazardous substances (SHS) were investigated on peripheral property MP-00181-OT, Phases IV and IVA: (1) A large area of dark asphaltic material/discolored soils adjacent to a former millsite boiler fuel storage tank and mill tailings stockpile location (Sample Location #1); (2) Discolored soils associated with abandoned boiler fuel distribution lines (Sample Location #2); and (3) A leach field/septic system that was used by the former millsite Analytical Control Laboratory for the disposal of both laboratory and sanitary wastes (Sample Locations #3 and #4). Two locations suspected to be contaminated with hazardous substances were investigated on peripheral property MP-00211-VL, Phases I and II: (1) A former acid storage tank location (Sample Location #5); and (2) a former acid receiving station (Sample Location #6). These locations were sampled on October 16, 1995 in accordance with the approved *Sampling and Analysis Plan for Monticello Peripheral Properties MP-00181-OT, Phases IV and IVA, and MP-00211-VL, Phases I and II* (DOE-GJPO 1995a). This document was approved by DOE-GJPO and forwarded to the U.S. Environmental Protection Agency on September 7, 1995.

The analytical data resulting from the characterization activities conducted at these properties identified the following hazardous substances to be present in the soil samples at concentrations which exceed the U.S. Environmental Protection Agency (EPA), Region III Risk Based Concentration (RBC) values based on a residential soil ingestion exposure scenario:

- Arsenic, a Priority Pollutant List metal, was detected in one sample collected from dark asphaltic materials located near the former boiler fuel storage tank and mill tailings stockpile location (Sample Location #1);
- Benzo (a) Anthracene, a semivolatile compound, was detected in one sample collected from dark asphaltic materials located near the former boiler fuel storage tank and mill tailings stockpile location (Sample Location #1); and
- Benzo (a) Pyrene, a semivolatile compound, was detected in two samples collected from discolored soils associated with abandoned boiler fuel distribution lines (Sample Location #2).

Beryllium was also detected in four samples at concentrations exceeding the EPA Region III default values. Beryllium, however, is not considered a contaminant of concern at this site because the naturally occurring background concentrations for this metal exceed the EPA Region III RBCs for this constituent.

Although hazardous substances were identified in several soil samples at concentrations exceeding established RBC values, these samples were collected from areas that were contaminated by materials that were commonly used in support of the day to day activities and operations of the mill (e.g., the boiler fuel and distribution system; the analytical control laboratory; and product storage facilities). Consequently, these materials are defined as byproduct materials, according to the approved *Monticello Remedial Action Project Special Waste Management Plan for the Monticello Mill Tailings Site and Vicinity Properties* (DOE-GJPO 1995b). The byproduct materials associated with these sampling locations meet the waste acceptance criteria established for the on-site repository, do not require special management, and are therefore, recommended to be remediated and disposed of at the on-site repository. Additionally, all sample locations are located in radiologically contaminated areas that will be remediated in accordance with the Radiological Assessment that has been prepared for these properties. It is recommended that verification sampling be conducted post-remediation to ensure that remediation of byproduct materials has been successfully accomplished, and that any health risks associated with the identified byproduct-related hazardous substances have been successfully mitigated.

If during remediation, additional SHS materials are unexpectedly encountered, these areas will be characterized and managed in accordance with the procedure as outlined in the *Monticello Remedial Action Project Special Waste Management Plan for the Monticello Mill Tailings Site and Vicinity Properties* (DOE-GJPO 1995b).

1.0 INTRODUCTION

The Monticello Mill Tailings Site (MMTS) was placed on the Comprehensive Environmental Response, Compensation, and Liability Act's (CERCLA) National Priorities List in 1989 to ensure that appropriate actions are taken to protect public health and the environment from hazards created by past operations. The MMTS project addresses the remediation of peripheral properties that are included as Operable Unit II. Monticello peripheral properties MP-00181-OT, Phases IV and IVA, and MP-00211-VL, Phases I and II are the subject of this report. The purpose of this report is to document the CERCLA hazardous substance characterization activities that have taken place to date at these properties, and to propose remediation and/or waste management recommendations.

Environmental restoration of the MMTS is prescribed in a Federal Facility Agreement (FFA) signed in December 1988 among the U.S. Department of Energy-Grand Junction Projects Office (DOE-GJPO), the U.S. Environmental Protection Agency, and the State of Utah. In accordance with the FFA and CERCLA, the DOE-GJPO is responsible for cleanup of hazardous substances that equal or exceed risk-based standards and for the management of wastes generated during the remediation in compliance with all applicable or relevant and appropriate requirements.

This site characterization was performed in accordance with the processes and concepts outlined in the *Monticello Remedial Action Project Special Waste Management Plan for the Monticello Mill Tailings Site and Vicinity Properties* (DOE-GJPO 1995b) and the Rust Geotech *Environmental Procedures Catalog* (Rust Geotech 1995).

1.1 Definitions

Area of Concern—an area suspected of a hazardous substance release from analysis of site assessment information. Areas of concern generally warrant follow-up characterization or remediation.

CERCLA Hazardous Substance—the term "hazardous substance" means (A) any substance designated pursuant to Section 311(b)(2)(A) of the Federal Water Pollution Control Act, (B) any element, compound, mixture, solution, or substance designated pursuant to Section 102 of CERCLA, (C) any hazardous waste having the characteristics identified under or listed pursuant to Section 2001 of the Solid Waste Disposal Act (SWDA) (but not including any waste the regulation of which under the SWDA has been suspended by Act of Congress), (D) any toxic pollutant listed under Section 112 of the Clean Air Act (CAA), (E) any hazardous air pollutant listed under Section 112 of the CAA, and (F) any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to Section 7 of the Toxic Substances Control Act. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas,

natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

Contaminant or Pollutant—as defined by Section 101(33) of CERCLA, includes, but is not limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions, or physical deformations, in such organisms or their offspring. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under Section 101(14)(A) through (F) of CERCLA, nor does it include natural gas, liquefied natural gas, or synthetic gas of pipeline quality. In conducting a removal action, the term contaminant or pollutant means any contaminant or pollutant that may present an imminent and substantial danger to public health and welfare.

Hazardous Waste—The definition of hazardous waste is provided in the Utah Hazardous Waste Management Regulations (HWMR), Utah Administrative Code (UAC) R315-2-1. A waste may qualify as a listed hazardous waste by appearing on one of four lists developed by EPA. To determine if a waste is a listed waste, a significant amount of information about the waste generation process is required. This information is often not available for abandoned waste sites addressed under CERCLA. However, a waste that does not appear on any of the four lists may still qualify as a characteristic hazardous waste if it exhibits one or more of four characteristics—ignitability, corrosivity, reactivity, or toxicity. The State of Utah has defined each of these characteristics in the Utah HWMR by either narrative guidelines or numerical criteria associated with specific test procedures. For known waste-generation processes on the millsite, generation of RCRA-listed wastes is not suspected; therefore, wastes will only be considered hazardous if they exhibit one of the four characteristics. On the basis of current knowledge of Monticello Vicinity Properties and Monticello Peripheral Properties, listed hazardous wastes are not expected to be encountered; however, some wastes may meet the definition of characteristic hazardous wastes.

Release—means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant). This definition excludes, among other things, any release of source, byproduct, or special nuclear material from any processing site designated under Section 102(a)(1) OR 302(a) of the Uranium Mill Tailings Radiation Control Act of 1978. For purposes of the National Contingency Plan, release also means threat of release.

Site Assessment—a thorough qualitative review of the site based on field observations and readily available existing information. Includes a review of property records to investigate past or current activities at a site or adjacent properties with respect to potential hazardous substance releases and inspection of the site for evidence of contaminant releases. If appropriate, a Site Assessment Report will be prepared and will include recommendations for site sampling and analysis.

On-Site Assessment—an on-site visit to determine whether there is a release or potential release of hazardous substances, and the nature of the associated threats. The purpose is to augment data collected during the historical research and to generate, if necessary, limited sampling and other field data.

Verification Sampling—the collection of a representative sample of the remediated area for the purpose of establishing thorough analytical data that remediation activities have been adequately completed. Verification sampling, as used in this document should not be confused with the independent verification contractor's verification that will also be performed as part of the remediation process.

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2.0 SITE LOCATION AND DESCRIPTION

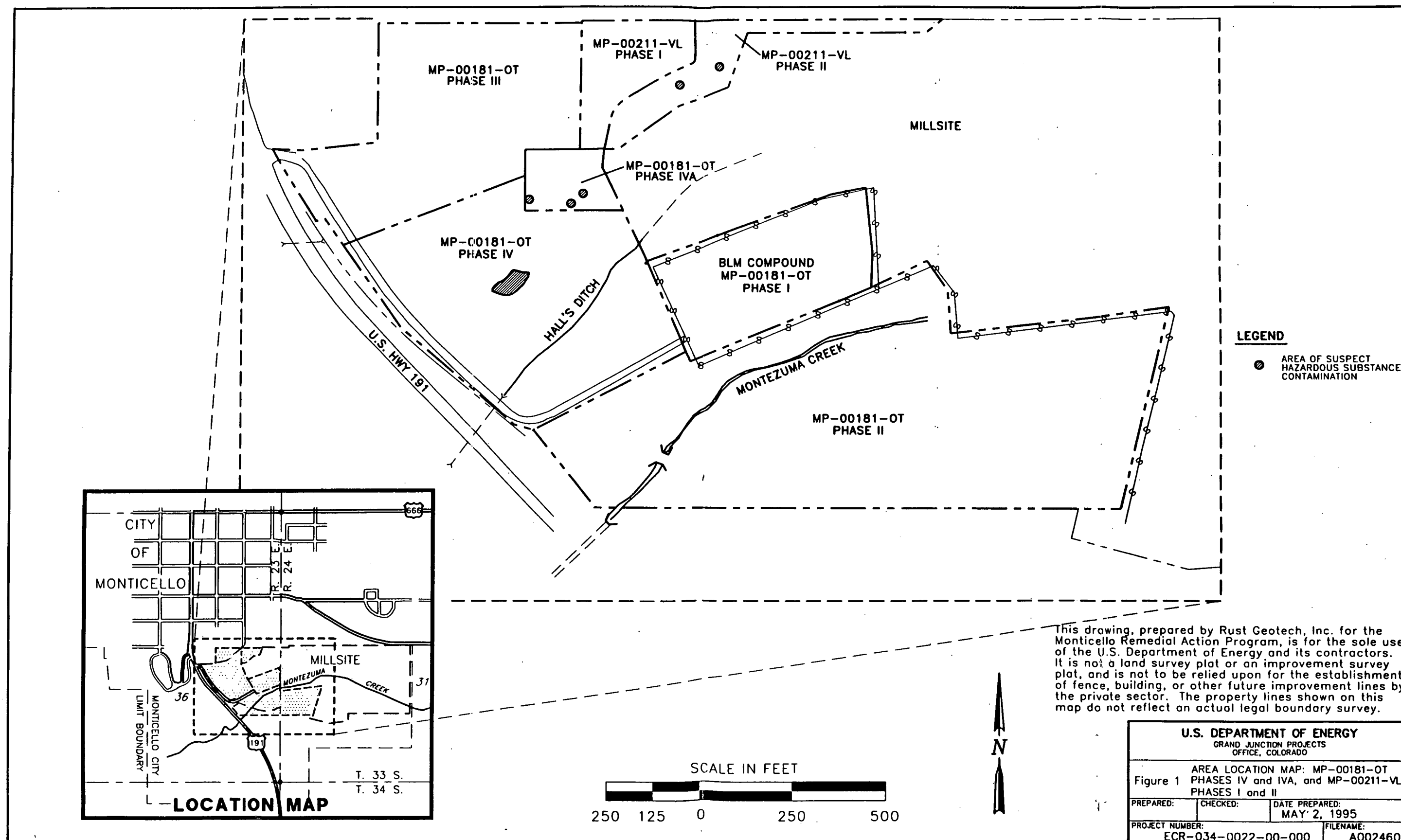
Both peripheral properties are located adjacent to the Monticello millsite, which is located south of Monticello in San Juan County, Utah. Figure 1 shows the location of the properties in relation to the millsite and the city.

DOE peripheral property MP-00181-OT consists of 37.8 acres and is divided into four phases. Phases IV and IVA consist of 9.5 acres and are located in the central western portion of the property. The property is vegetated with native grasses, brush, and Juniper trees. Hall's ditch flows through Phase IV southwest to northeast. The northern half of the property slopes to the south, while the southern half of the property is nearly flat. These phases are bounded on the north by MP-00181-OT, Phase III and MP-00211-VL; on the east by MP-00181-OT, Phase I (BLM Compound) and the Monticello millsite; on the south by MP-00181-OT, Phase II; and on the west by State of Utah Highway 191 right of way (DOE ID No. MS-01021-OT). Existing structural features located on this peripheral property include the concrete foundation (i.e., basement, stemwall, and floor slab) of an abandoned analytical laboratory; an asphalt parking lot located in the northeast portion of the property; the remnants of a cinder block foundation of a former millsite employee housing building located along the southern boundary; and a portion of a concrete foundation from the former millsite first aid building and guard station.

DOE peripheral property MP-00211-VL (Phases I and II) consists of 2.9 acres. The topography of this property slopes to the south; however, a small portion of the northwest corner is relatively flat. The property is sparsely vegetated with native grasses and brush. The property is bounded on the north by previously-remediated Monticello Vicinity Properties (MS-00104-CS); on the east by the Monticello millsite; on the south by MP-00181-OT, Phase IVA; and on the west by MP-00181-OT, Phase III. Existing structural features located on the property include remnants of the former millsite water supply and distribution system (including concrete vaults, manholes, valve controls, underground piping, concrete supports for the water tower, etc.), and various underground utilities (both active and inactive). A Monticello city street (i.e., Fifth South, Second East) terminates at the northern property line.

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Figure 1



3.0 DESCRIPTION OF CURRENT AND PRIOR LAND USE

Information regarding the historical use of this property was obtained through interviews with former millsite employees and long-time area residents Mr. Ken Christensen, Mr. Richard Terry (former City Manager for the City of Monticello), and Mr. Chuck Brunner, and by researching available historical documents including millsite maps, facility as-built drawings, and photographs.

Both peripheral properties were formerly part of the Monticello millsite. The mill was constructed on unimproved land in 1942 by the Vanadium Corporation of America to process vanadium and uranium ores. In 1948, the Atomic Energy Commission (AEC) purchased the mill and continued processing uranium ore until the mill closed in January 1960.

As indicated in Section 2.0, structures and/or facilities located in the areas now referred to as MP-00181-OT, Phases IV and IVA, that were associated with millsite activities include the Analytical Control Laboratory and three large above ground boiler fuel tanks, an employee housing structure, and a portion of the millsite guard and first aid station. All of the above facilities and structures have since been abandoned and demolished. Three underground storage tanks used for storage of diesel fuel and gasoline were also located in the southeast portion of this property. These tanks however, have since been remediated. After the mill was closed, the U.S. Bureau of Land Management (BLM) used a portion of the millsite which is located immediately east of Phase IV and is commonly known as the BLM Compound. However, there are no other known or documented uses of MP-00181-OT, Phases IV and IVA (by the BLM or any other party) after closure of the mill.

Millsite structures and/or facilities located on MP-00211-VL, Phases I and II, included the primary water supply, storage, and distribution system for the millsite, a sample plant and sample storage building, portions of the crushing plant and a calcium carbonate bin (used in the carbonate leaching process), an acid (i.e., sulfuric acid) storage tank and receiving station, and a concrete pad used for ore receiving and storage. All of these structures have since been abandoned and completely demolished except for the former concrete ore storage and receiving pad. Upon closure of the mill in 1960, ownership of this property was transferred from the AEC to the City of Monticello. Use of this property by the City of Monticello has been limited to storage of assorted street and road repairing materials such as asphalt mix, sand, gravel, culverts, fencing, etc. The City stores these materials on the concrete slab that was formerly used as an ore receiving station. There are no other known or documented uses of this property.

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4.0 SITE ASSESSMENT AND CHARACTERIZATION ACTIVITIES

An on-site assessment of these peripheral properties was conducted on July 13, 1993. The purpose of this assessment was to identify areas that may have been contaminated with SHS as a result of known historical activities and land uses (i.e., millsite operations and activities). The Site Assessment was performed in accordance with the guidelines described in the *Monticello Remedial Action Project Special Waste Management Plan for the Monticello Mill Tailings Site and Vicinity Properties* (DOE 1995b).

4.1 Summary of Sample Locations

Sample locations were identified during the Site Assessment using the field recognition criteria and procedures as outlined in the *Monticello Remedial Action Project Special Waste Management Plan for the Monticello Mill Tailings Site and Vicinity Properties* (DOE 1995b). Six locations at these peripheral properties were identified as requiring additional characterization. A summary of the locations identified during the Site Assessment which require additional characterization is provided in Table 4-1.

Table 4-1. Summary of Sample Locations at MP-00181-OT, Phases IV and IVA

Location	Field Recognition Criteria	Suspected/Potential Type of Contamination
MP-00181-OT, Phases IV and IVA		
Boiler Fuel Storage Tank (Sample Location #1)	Discolored soils, oily texture	volatile organic compounds (VOCs), semi-VOCs, metals
Boiler Fuel Distribution/ Supply Lines (Sample Location #2)	Discolored soils, oily texture	VOCs, semi-VOCs, metals
Analytical Control Laboratory (Sample Location #3)	Historical data, unusual odors and elevated PID ^a readings noted in downslope excavations (i.e., Halls Ditch)	VOCs (analytical solvents, wastes, etc), semi-VOCs, metals
Analytical Control Laboratory (Sample Location #4)	Historical data, unusual odors and elevated PID readings noted in downslope excavations (i.e., Halls Ditch)	VOCs (analytical solvents, wastes, etc.), semi-VOCs, metals
MP-00211-VL, Phases I and II		
Acid Receiving Station (Sample Location #5)	Inhibited plant growth and stressed vegetation	acidic soils (low pH)
Acid Storage Tank (Sample Location #6)	Inhibited plant growth and stressed vegetation	acidic soils (low pH)

^a PID = Photoionization Detector

4.2 Description of Sampling Activities

The above sample locations were sampled on October 16, 1995 in accordance with the approved *Sampling and Analysis Plan (SAP) for Monticello Peripheral Properties MP-00181-OT, Phases IV and IVA, and MP-00211-VL, Phases I and II* (DOE-GJPO 1995a). This document was approved by DOE-GJPO and forwarded to the U.S. Environmental Protection Agency on September 7, 1995. Sample locations are shown in Figure 2. A description of each sample location and the related sampling activities is provided below. A summary of the samples collected at each location is provided in Table 4-2.

Sample Location #1: Boiler Fuel Storage Tank Location:

Three large above ground storage tanks were located on MP-00181-OT, Phase IV. The AEC stored boiler fuel in these tanks which was used for heating purposes at the millsite. The tanks were dismantled when the mill closed in 1960. Sample Location #1 focuses on an area located immediately south of where the tanks were once located. It is suspected that a release of an unknown liquid substance may have occurred in this area, as a dark brown/black colored crust/residue is visible on the surface of the soil. The material also exhibits an oily, asphaltic appearance, and has no discernable odor. The area of suspected contamination measures approximately 30 feet in width, by 50 feet in length, and 2 inches in depth. The material appears to be uniform in texture, color, and thickness. A single sample representative of the material was collected using a stainless steel spoon. The sample was submitted for Target Compound List (TCL) volatile organic compounds (VOC), semi-VOCs and Priority Pollutant List (PPL) metals analyses. These analytes are defined by EPA's Office of Emergency and Remedial Response in the *Contract Laboratory Program (CLP) Statement of Work for Organic Analysis, Multi-Media, Multi-Concentration* (EPA 1991a) and the *Contract Laboratory Program (CLP) Statement of Work for Inorganic Analysis, Multi-Media, Multi-Concentration* (EPA 1991b).

Sample Location #2: Boiler Fuel Distribution Lines:

Sample Location #2 consists of dark, discolored soils that were observed surrounding two boiler fuel distribution/supply lines measuring approximately 4 inches in diameter. The lines are exposed in an earthen bank located immediately east of the former boiler fuel storage tank location. The soils immediately surrounding the pipelines have been stained dark brown, and have an oily appearance. A single sample representative of the material was collected using a stainless steel spoon. The sample was submitted for Target Compound List TCL VOCs, semi-VOCs and Priority Pollutant List (PPL) metals analyses.

Sample Locations #3 and #4: Analytical Control Laboratory:

A review of as-built drawings for the Monticello Mill Analytical Control Laboratory (MP-00181-OT, Phase IVA) indicates that laboratory liquid effluent wastes (both process and sanitary wastes) were discharged into two "dry wells" located south of the laboratory. The as-built drawings depict the top of the dry wells to be constructed at a depth of three feet below

Figure 2

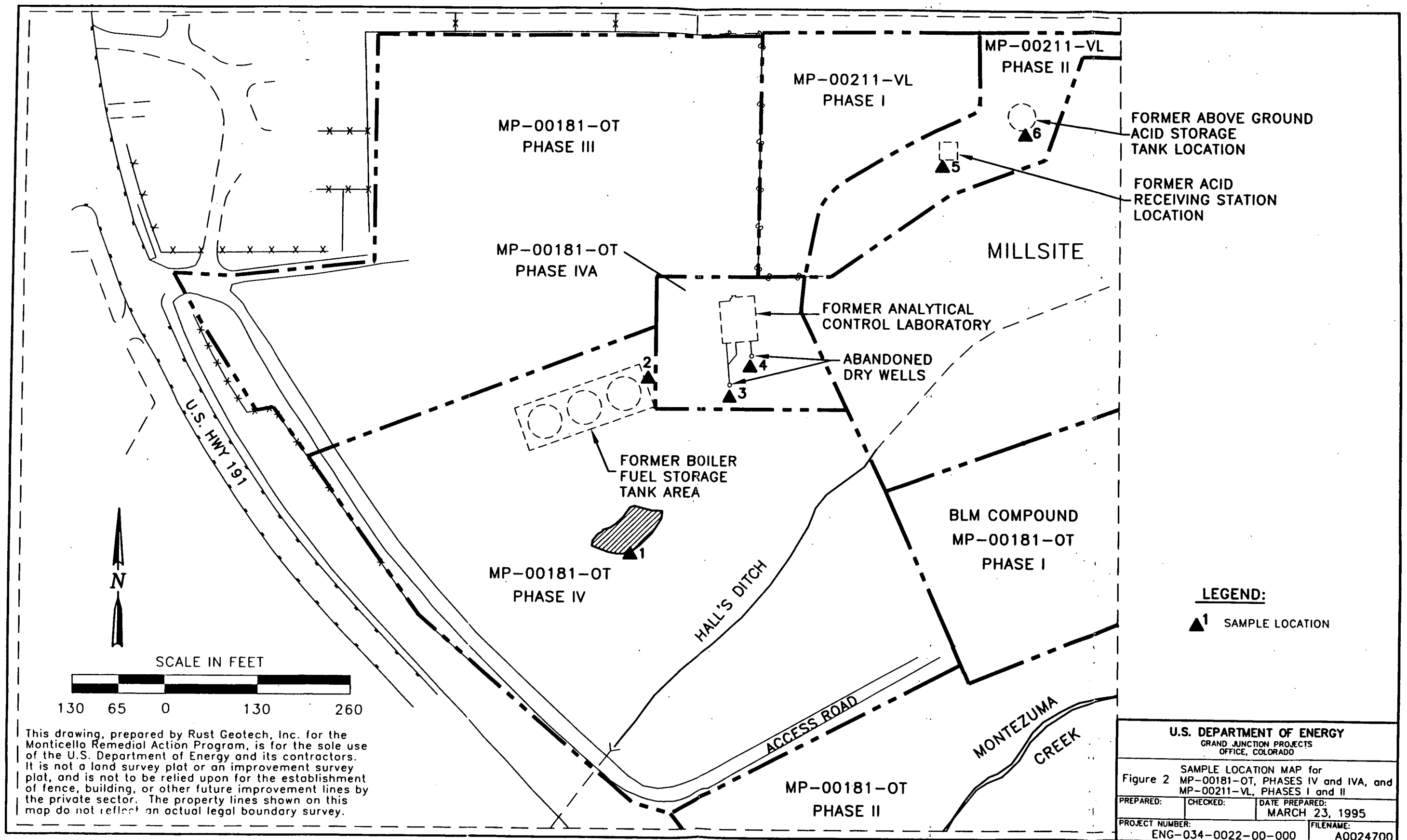


Table 4-2. Summary of Samples Collected

Sample Location (See Figure 2)	Sample Type/ Matrix	Collection Method	Requested Analysis	Sample Ticket Number
Boiler Fuel Storage Tank Area: Sample Location #1	Grab/soil	Spoon	TCL VOCs TCL semi-VOCs PPL metals	NBF-226
Boil Fuel Distribution/ Supply Lines (Sample Location #2)	Grab/soil	Spoon	TCL VOCs TCL semi-VOCs PPL metals	NBF-231
Boil Fuel Distribution/ Supply Lines (Sample Location #2). Duplicate.	Grab/soil	Spoon	TCL VOCs TCL semi-VOCs PPL metals	NBF-232
Analytical Control Laboratory: Sample Location #3	Grab/soil	Backhoe, Spoon	TCL VOCs TCL semi-VOCs PPL metals	NBF-227
Analytical Control Laboratory: Sample Location #4	Grab/soil	Backhoe, Spoon	TCL VOCs TCL semi-VOCs PPL metals	NBF-228
Former Acid Receiving Station: Sample Location 5	Grab/soil	Spoon	pH	NBF-230
Former Acid Storage Tank Location: Sample Location 6	Grab/soil	Spoon	pH	NBF-229

the existing grade (ground surface); eight feet in diameter; and eight feet deep. Each dry well consisted of an unlined excavation that was filled with large broken stone and covered by a 4-inch creosoted wooden plank.

Because the dry wells are located beneath the ground surface, their exact locations are not known; however, their locations can be approximated based on information from the analytical laboratory as-built drawings. The locations of the dry wells were determined as follows: First, the exact locations where the waste effluent sewer lines exited the analytical laboratory foundation were previously found by digging along the outside edge of the analytical laboratory foundation. These locations corresponded with the exit locations depicted on the analytical laboratory as-built drawings. Secondly, the anticipated location for each dry well was identified on the ground surface by measuring out known distances from

the edge of the analytical laboratory foundation and parallel to the waste effluent sewer lines. Lastly, a backhoe was then used to locate the dry wells by digging a trench on the downslope side of each suspected dry well location. Several efforts were made to locate each of the dry well structures by digging several trenches above and below each suspected location. The trenches were dug to depths of 12 feet. During the trenching activities, fragments of orangeburg sewer pipe were encountered, but no contiguous sewer lines or other evidence (large broken stones, the creosoted plank cover, etc.) related to the dry well structures were found. The laboratory as-built drawings also show a 500 gallon steel septic tank (used for sanitary waste disposal) in the same vicinity as the dry wells. The tank was not encountered during any of the trenching activities. Based on the extensive trenching that was performed in this area and the fact that only fragments of the sewer pipe were found, it is concluded that the dry wells, sewer lines, and the septic tank must have been removed by the AEC at the time when the Analytical Laboratory was demolished.

In accordance with the SAP that was prepared for these properties, samples were collected immediately downslope from where each of the former dry wells were suspected to be located. The southern most dry well was designated as sample location #3; and the northern most dry well was designated as sample location #4. At each sample location, soils from the 12 foot depth interval were brought to the surface using a backhoe. Soil samples were collected directly from the bucket of the backhoe using a stainless steel spoon. No unusual odors were noted during the excavation activities. Samples were submitted for TCL VOCs, TCL semi-VOCs, and PPL metals analyses. After sample collection activities were completed, all excavated materials were placed back into the trenches.

Sample Locations #5 and #6: Former Acid Receiving Station and Storage Tank:

During the site inspection of MP-00211-VL Phase II, areas of denuded and stressed vegetation were observed in the vicinity of a former acid storage tank location and an acid receiving station. Both structures are believed to have been demolished at the time that the mill closed in 1960. Process and historical knowledge indicate that sulfuric acid was stored in the above ground tank. The former acid receiving station is designated as Sample Location #5, and the former acid storage tank location is designated as Sample Location #6. A soil sample was collected at each sample location from the 0 to 6 inch depth interval using a stainless steel spoon. The samples were submitted for laboratory pH analysis.

4.3 Analytical Data Summary

Analytical results for samples collected from these locations are summarized in Table 4-3. Data are only reported for those samples where one or more analytes were detected. Analysis was conducted by the DOE-GJPO Analytical Laboratory in accordance with EPA approved analytical methods. A complete set of the analytical data sheets are included in Appendix A.

Table 4-3. Summary of Hazardous Substances Detected in Samples Collected From Monticello Peripheral Properties
MP-00181-OT, Phases IV and IVA, and MP-00211-VL, Phases I and II

Sample Location	Sample Ticket No.	Analysis	Analyte Detected	Analytical Result	Risk-Based Concentrations ¹
Location #1	NBF 226	PPL Metals	Arsenic	34.30 mg/kg	23.00 mg/Kg
			Beryllium	0.94 mg/Kg	0.15 mg/Kg
			Cadmium	0.83 mg/Kg	39.00 mg/Kg
			Chromium	14.20 mg/Kg	390.00 mg/Kg
			Copper	547.00 mg/Kg	2900.00 mg/Kg
			Lead	30.80 mg/Kg	400.00 mg/Kg
			Mercury	0.02 mg/Kg	23.00 mg/Kg
			Nickel	25.90 mg/Kg	1600.00 mg/Kg
			Selenium	2.00 mg/Kg	390.00 mg/Kg
			Silver	0.37 mgKg	390.00 mg/Kg
			Thallium	0.73 mg/Kg	6.30 mg/Kg
			Zinc	153.00 mg/Kg	23000.00 mg/Kg
TCL VOCs	Acetone	160.00 µg/Kg	7800.00 mg/Kg		
	Iodomethane	14.00 µg/Kg	NA ²		
TCL SEMIVOCs	Phenanthrene	1600.00 µg/Kg	NA ²		
	Pyrene	9600.00 µg/Kg	2300.00 mg/Kg		
	Benzo(a)Anthracene	8500.00 µg/Kg	0.88 mg/Kg		
	bis(2-Ethylhexyl)Phthalate	2400.00 µg/Kg	46.00 mg/Kg		
	Benzo(g,h,i)Perylene	22000.00 µg/Kg	NA ²		
Location #2	NBF 231	PPL Metals	Antimony	0.28 mg/Kg	31.00 mg/Kg
			Arsenic	18.40 mg/kg	23.00 mg/Kg
			Beryllium	0.85 mg/Kg	0.15 mg/Kg
			Chromium	14.80 mg/Kg	390.00 mg/Kg
			Copper	182.00 mg/Kg	2900.00 mg/Kg
			Lead	241.00 mg/Kg	400.00 mg/Kg
			Nickel	11.80 mg/Kg	1600.00 mg/Kg
			Selenium	0.41 mg/Kg	390.00 mg/Kg
			Silver	2.00 mgKg	390.00 mg/Kg
			Thallium	0.22 mg/Kg	6.30 mg/Kg
			Zinc	1690.00 mg/Kg	23000.00 mg/Kg
			TCL VOCs	Acetone	83.00 µg/Kg
Iodomethane	24.00 µg/Kg	NA ²			
TCL SEMIVOCs	Pyrene	100000.00 µg/Kg	2300.00 mg/Kg		
	Benzo(a)Pyrene	78000.00 µg/Kg	0.088 mg/Kg		
	Benzo(g,h,i)Perylene	27000.00 µg/Kg	NA ²		

Table 4-3 (continued). Summary of Hazardous Substances Detected in Samples Collected From Monticello Peripheral Properties MP-00181-OT, Phases IV and IVA, and MP-00211-VL, Phases I and II

Sample Location	Sample Ticket No.	Analysis	Analyte Detected	Analytical Result	Risk-Based Concentrations ¹
Location #2 (Duplicate Analysis)	NBF 232	PPL Metals	Antimony	0.33 mg/Kg	31.00 mg/Kg
			Arsenic	12.40 mg/kg	23.00 mg/Kg
			Beryllium	0.81 mg/Kg	0.15 mg/Kg
			Chromium	13.50 mg/Kg	390.00 mg/Kg
			Copper	161.00 mg/Kg	2900.00 mg/Kg
			Lead	190.00 mg/Kg	400.00 mg/Kg
			Nickel	10.90 mg/Kg	1600.00 mg/Kg
			Selenium	0.56 mg/Kg	390.00 mg/Kg
			Silver	1.70 mg/Kg	390.00 mg/Kg
			Thallium	0.22 mg/Kg	6.30 mg/Kg
		Zinc	1290.00 mg/Kg	23000.00 mg/Kg	
TCL VOCs	Acetone	38.00 µg/Kg	7800.00 mg/Kg		
	Iodomethane	3.00 µg/Kg	NA ²		
	2-Butanone	8.00 µg/Kg	47000.00 mg/Kg		
TCL SEMIVOCs	Pyrene	8800.00 µg/Kg	2300.00 mg/Kg		
	bis(2-Ethylhexyl)Phthalate	1400.00 µg/Kg	46.00 mg/Kg		
	Benzo(a)Pyrene	31000.00 µg/Kg	0.088 mg/Kg		
	Benzo(g,h,i)Perylene	26000.00 µg/Kg	NA ²		
Location #3	NBF 227	PPL Metals	Antimony	0.18 mg/Kg	31.00 mg/Kg
			Arsenic	5.90 mg/kg	23.00 mg/Kg
			Beryllium	0.77 mg/Kg	0.15 mg/Kg
			Chromium	10.50 mg/Kg	390.00 mg/Kg
			Copper	10.70 mg/Kg	2900.00 mg/Kg
			Lead	14.50 mg/Kg	400.00 mg/Kg
			Mercury	0.07 mg/Kg	23.00 mg/Kg
			Nickel	11.90 mg/Kg	1600.00 mg/Kg
			Selenium	0.41 mg/Kg	390.00 mg/Kg
			Silver	0.23 mg/Kg	390.00 mg/Kg
			Thallium	0.13 mg/Kg	6.30 mg/Kg
			Zinc	50.40 mg/Kg	23000.00 mg/Kg
		TCL VOCs	Iodomethane	5.00 µg/Kg	NA ²
		TCL SEMIVOCs	Di-n-Butylphthalate	73.00 µg/Kg	NA ²
bis(2-Ethylhexyl)Phthalate	100.00 µg/Kg	46.00 mg/Kg			

Table 4-3 (continued). Summary of Hazardous Substances Detected in Samples Collected From Monticello Peripheral Properties MP-00181-OT, Phases IV and IVA, and MP-00211-VL, Phases I and II

Sample Location	Sample Ticket No.	Analysis	Analyte Detected	Analytical Result	Risk-Based Concentrations ¹
Location #4	NBF 228	PPL Metals	Antimony	0.19 mg/Kg	31.00 mg/Kg
			Arsenic	3.40 mg/kg	23.00 mg/Kg
			Beryllium	0.56 mg/Kg	0.15 mg/Kg
			Chromium	11.30 mg/Kg	390.00 mg/Kg
			Copper	12.00 mg/Kg	2900.00 mg/Kg
			Lead	7.20 mg/Kg	400.00 mg/Kg
			Nickel	9.20 mg/Kg	1600.00 mg/Kg
			Thallium	0.12 mg/Kg	6.30 mg/Kg
			Zinc	35.50 mg/Kg	23000.00 mg/Kg
		TCL SEMIVOCs	Di-n-Butylphthalate bis(2-Ethylhexyl)Phthalate	51.00 µg/Kg 91.00 µg/Kg	NA ² 46.00 mg/Kg
Location #5	NBF 230	pH	NA	7.70	NA ²
Location #6	NBF 229	pH	NA	8.30	NA ²

¹ EPA, 1995a

² Detected analyte is not listed on the EPA Region III Risk-Based Concentration List.

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5.0 DATA INTERPRETATION AND RECOMMENDATIONS

5.1 Data Interpretation

This section summarizes the constituents that were detected in soil samples collected from each sample location, and which exceed the RBC values as established by EPA Region III.

Beryllium was detected in all four samples (sample ticket numbers NBF-226, NBF-231, NBF-232 [duplicate], NBF-227, and NBF-228) which were submitted for PPL metals analysis. Beryllium values in the four soil samples range between 0.56 mg/kg and 0.94 mg/kg. The EPA Region III RBC value for beryllium is 0.15 mg/kg. Although the concentrations of beryllium observed in these soil samples exceed the RBC value, they are consistent with background concentrations for beryllium in soils and surficial materials as reported by the U. S. Geological Survey (U.S.G.S. 1981). This report studies soils and surface materials from seven counties in eastern Utah and Western Colorado. The counties that were included in the study are Grand, San Juan, and Wayne counties in Utah; and Mesa, Montezuma, Montrose, and San Miguel counties in Colorado. The "seven counties study" reports the mean concentration for beryllium in soils to be 1.6 mg/kg. In a separate study, background concentrations for beryllium have also been documented by Kabata-Pendias and Pendias (1992) to range between 2.0 ppm and 5.0 ppm in shales, argillaceous sediments, and acidic rocks (i.e., granites, gneisses), all of which are common to the Monticello area and the uplifted Blue Mountains. More recently, background concentrations of beryllium in soils from Montezuma Canyon were documented in studies conducted by RUST Geotech in 1994 (DOE-GJPO 1995). This study reported the mean concentration for beryllium in soils from Montezuma Canyon to be 0.5 mg/kg.

Beryllium has been evaluated as a contaminant of concern (COC) at this site in accordance with the guidelines set forth by EPA Region VIII (EPA 1994). This guidance sets forth objective criteria (e.g., comparison to background levels, frequency of detections, essentiality, etc.) and provides explicit recommendations on measuring attainment for each criteria in order to evaluate whether or not a site-related contaminant should be retained as a COC.

As a result, it is concluded that the EPA RBC for beryllium is not appropriate to use as a soil screening criterion in the Monticello area because the background concentrations for this constituent exceed the RBC. Therefore, beryllium is not considered to be a COC at this site when it is observed to be present within or below the range of background values expected for the Monticello area.

Sample Location #1: Boiler Fuel Storage Tank Location:

Arsenic (PPL metal) and Benzo (a) Anthracene (semi-VOC) were detected in sample number NBF-226 in concentrations which exceed the EPA Region III RBC values. This sample location is the site of a former mill tailings stockpile. According to the *Radiological Assessment* (DOE-GJPO 1994) for this property, soils are estimated to be radiologically contaminated to depths of 72 inches at this location. The findings of the *Radiological Assessment* (DOE-GJPO 1994) confirms the historical use of this area as a mill tailings

stockpile. The elevated levels of arsenic observed at this sample location may therefore, be attributable to the concentrated mill tailings that have been identified at this location. The Benzo (a) Anthracene is a Polynuclear Aromatic Hydrocarbon (PAH) and is most likely associated with the asphaltic material that was sampled at this location. It is uncertain exactly what the asphaltic material noted at this location may have been used for; however, its presence is attributable to the millsite operations.

Both the radiological contamination and the asphaltic materials noted at this location are byproduct materials. It is recommended that all asphaltic materials/dicolored soils noted at this location be remediated and over-excavated. Over-excavation shall be defined to mean the remediation of all discolored materials plus the underlying six inches of undisturbed soils. To ensure that remediation of byproduct materials has been successfully accomplished, and that any health risks associated with the byproduct-related CERCLA hazardous substances have been successfully mitigated, it is recommended that post-remediation verification sampling be conducted at this location. Verification sampling will be conducted in accordance with the guidelines established in the *Monticello Remedial Action Project, Special Waste Management Plan for the Monticello Mill Tailings Site and Vicinity Properties* (DOE-GJPO 1995b).

These materials meet the waste acceptance criteria established for the on-site repository and are recommended for disposal at this facility.

Sample Location #2: Boiler Fuel Distribution Lines:

Benzo (a) Pyrene (semi-VOC) was detected in sample number NBF-227, and in a duplicate sample (NBF-232) in concentrations which exceed the EPA Region III RBC value for that constituent. The Benzo (a) Pyrene is a PAH commonly found in coal tar and is the product of incomplete combustion. Coal tar may be hydrogenated under pressure to form petroleum like fuels. Based on field observations, it is believed that the boiler fuel distribution pipelines contained residual quantities of bunker/boiler fuel at the time the boiler fuel storage tanks were dismantled. When the pipelines were disconnected, an undetermined amount of boiler/bunker fuel appears to have spilled from the pipelines and locally saturated the soils. The Benzo (a) Pyrene is most likely associated with the spilled bunker/boiler fuel. By definition, fuel spills associated with the milling operations are byproduct materials.

It is recommended that all discolored soils noted at this location be remediated and over-excavated. Over-excavation shall be defined to mean the remediation of all discolored materials plus the underlying six inches of undisturbed soils. To ensure that remediation of byproduct materials has been successfully accomplished, and that any health risks associated with the byproduct-related CERCLA hazardous substances have been successfully mitigated, it is recommended that post-remediation verification sampling be conducted at this location. Verification sampling will be conducted in accordance with the guidelines established in the *Monticello Remedial Action Project, Special Waste Management Plan for the Monticello Mill Tailings Site and Vicinity Properties* (DOE-GJPO 1995b).

These materials meet the waste acceptance criteria established for the on-site repository and are recommended for disposal at this facility.

Sample Locations #3 and #4: Analytical Control Laboratory:

Analysis of samples collected from the analytical laboratory dry well sample locations #3 and #4 (sample ticket number NBF-227 and NBF-228, respectively) did not detect any contaminants whose concentrations exceeded the EPA Region III RBC values. The soils are estimated to be radiologically contaminated to depths of 12 inches at these locations. These materials will be remediated and disposed in accordance with the findings of the *Radiological Assessment* (DOE-GJPO 1994).

Sample Locations #5 and #6: Former Acid Receiving Station and Storage Tank:

Samples NBF-230 and NBF-229 were collected from soils adjacent to a former acid receiving station and an acid storage tank (sample locations #5 and #6 respectively). At the time of the on-site inspection, the vegetation downslope of the concrete remnants of these structures appeared stressed and inhibited. Based on the field observations, it was suspected that acids may have been spilled or released to the soils at the time these structures were demolished. Consequently a sample was collected from soils representative of the locations and submitted for laboratory pH analysis. The laboratory pH determination for sample location #5 (NBF-230) was 7.70. The laboratory pH determination for sample location #6 (NBF-229) was 8.30. Both analytical results are relatively neutral, and are not indicative that the soils are corrosive (i.e., less than or equal to 2.0, or greater than or equal to 12.5). These materials are therefore, not considered characteristically hazardous, and do not require special management. The soils are estimated to be radiologically contaminated to depths of 12 inches at these locations. These materials will be remediated and disposed in accordance with the findings of the *Radiological Assessment* (DOE-GJPO 1994).

5.2 Recommendations

The sample locations examined in Section 4.0 are all located in radiologically contaminated areas that will be remediated and disposed in accordance with the findings of the *Radiological Assessment* (DOE-GJPO 1994).

Hazardous substances were identified in several soil samples at concentrations exceeding established RBC values; however, these samples were collected from areas that were contaminated by materials that were commonly used in support of the day to day activities and operations of the mill (e.g. the boiler fuel and distribution system; the analytical control laboratory; and product storage facilities). Consequently, these wastes are considered to be byproduct materials in accordance with the definition provided in the *Monticello Remedial Action Project, Special Waste Management Plan for the Monticello Mill Tailings Site and Vicinity Properties* (DOE-GJPO 1995b). Byproduct materials are defined to include:

Miscellaneous spills and leaks of fuels, solvents, or processing reagents generated as a result of the milling operation from heating and maintenance operations, storage facilities, or laboratory operations.

The byproduct materials associated with these sampling locations meet the waste acceptance criteria established for the on-site repository; do not require special management; and are recommended to be remediated and disposed of at the on-site repository. To ensure that remediation of byproduct materials has been successfully accomplished, and that any health risks associated with the byproduct-related hazardous substances have been successfully mitigated, it is recommended that post-remediation verification sampling be conducted at locations where hazardous substances were detected to exceed RBC values; specifically, the boiler fuel storage tank location (sample location #1) and the soils adjacent to the boiler fuel distribution lines (sample location #2). Verification sampling will be conducted in accordance with the guidelines established in the *Monticello Remedial Action Project, Special Waste Management Plan for the Monticello Mill Tailings Site and Vicinity Properties* (DOE-GJPO 1995b).

If during remediation, additional SHS materials are unexpectedly encountered, these areas will be characterized and managed in accordance with the procedure as outlined in the *Monticello Remedial Action Project Special Waste Management Plan for the Monticello Mill Tailings Site and Vicinity Properties* (DOE-GJPO 1995b).

6.0 REFERENCES

U.S. Department of Energy-Grand Junction Projects Office, 1995a. *Monticello Remedial Action Project, Sampling and Analysis Plan for Monticello Peripheral Properties MP-00181-OT, Phases IV and IVA, and MP-00211-VL, Phases I and II*, Grand Junction Projects Office, Grand Junction, Colorado.

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APPENDIX A
Analytical Data

ANALYTICAL SUMMARY

This three-volume report contains the results for seven soil samples received on October--18, 1995, under project number PP00000EC and Geotech Requisition Number 14325.

The samples were submitted for the determination of volatile organic compounds, semivolatile organic compounds, Priority Pollutant (PPL) metals, and pH.

The results for all of the analyses are reported on a dry weight basis.

PPL Metals

Percent solids were determined according to Geotech Standard Operating Procedure (SOP) M-8. Raw data for percent solids are found on pages 187 and 188 in Section II.

Beryllium, chromium, copper, nickel, silver, and zinc were analyzed by inductively coupled plasma-atomic emission spectrometry (ICP-AES) according to Geotech SOP AS-5. Antimony, cadmium, lead, and thallium were analyzed by inductively coupled plasma-mass spectrometry (ICP-MS) according to Geotech SOP AS-6. Arsenic and selenium were analyzed using graphite furnace atomic absorption spectrometry according to Geotech SOP AS-2. Mercury was determined by cold vapor atomic absorption spectrometry in accordance with Geotech SOP AS-3. The determination of pH was done in accordance with Geotech SOP H-4.

The spiked sample recoveries for antimony and zinc were not within the control limits, as indicated by the "N" qualifiers.

The "S" qualifier next to the arsenic results for samples 232824 and 232825 and the "+" qualifier beside the selenium result for sample 232827 indicate that the results were obtained by the method of standard addition (MSA). The MSA is required for a graphite furnace analysis if the analytical spike recovery is outside the control limits (85-115%) and the sample concentration is greater than or equal to 50% of the spike concentration. The "+" qualifier further signifies that the correlation coefficient for the MSA is less than 0.995.

No control limits have been determined for the recovery of analytes from LCS23 following microwave digestion. LCS23 was the laboratory control sample used during the PPL metals analysis. The limits given on Form 7 in the supporting documentation are for the recoveries following an acid digestion.

The zinc results received "E" qualifiers because the result for the serial dilution differed from the original result by more than 10% and the original result was more than 50 times the instrument detection limit (IDL).

The "W" qualifiers next to the selenium results for samples 232824, 232825, and 232826 indicate that the analytical spike recoveries for the graphite furnace analyses were out of the control limits (85-115%), while the sample concentrations were less than 50% of the spike concentrations.

The recoveries of lead and selenium from the sample used for duplicate analysis were not within the control limits, as indicated by the "*" qualifier.

A "B" qualifier indicates that the reported value was obtained from a reading that was less than the Required Detection Limit (RDL) but greater than or equal to the actual Detection Limit (DL). The "U" qualifier indicates that the result was below the detection limit.

Volatiles

The determination of volatile organic compounds was done by gas chromatography-mass spectrometry (GC-MS) according to Geotech SOP BB-1, which is the laboratory SOP for USEPA SW-846, Method 8260A. Target compounds and their concentrations or reporting limits are found on Forms 1A. Tentatively identified compounds (TICs), if any, are found on Form 1E. A "B" qualifier is found next to the result of any compound which is also detected in the method blank. A "J" qualifier indicates an estimated value. An "N" qualifier indicates presumptive identification of a TIC when the identification is based on a mass spectral library search.

The analyst notes in the summary on page 1 of Section III that samples 232823, 232826, and 232827 were intensely black in color. These samples failed the internal standard area count and percent recovery of surrogates. Each of these samples were repeated and again failed these requirements. The spike duplicate failed the same two requirements but was not repeated. The original and replicate results for the samples are in the supporting documentation and in the analytical data summary.

Semivolatiles

Determination of semivolatile organic compounds was done by GC-MS using Geotech SOP BB-2, which is the laboratory SOP for EPA SW-846, Method 8270B. Target analytes are reported on Forms 1B, 1C, and 1D. TICs are reported on Forms 1F. The "J" qualifiers found on Forms 1 indicate estimated values. A "B" qualifier is found next to the result of any compound which is also detected in the method blank. An "N" qualifier indicates presumptive identification of a TIC when the identification is based on a mass spectral library search.

Samples 232823, 232826, and 232827 were extracted and analyzed using the medium level method. Sample 232826 was diluted prior to analysis based on the screening of the extracts which was done by a gas chromatograph equipped with a flame ionization detector (GC/FID).

The matrix spike and matrix spike duplicate samples required reanalysis due to an error in the amount of spiking solution added to the samples. The extracts were diluted by a factor of 2 and reanalyzed on October 25. Only the results for the diluted samples are reported. The continuing calibration check (CCC) sample for October 25 had several compounds outside the quality control limits, however, none of those compounds were spiking compounds and the analysis was continued. There were 3 of 11 relative percent differences and 7 of 22 recoveries outside control limits. The matrix spike analysis and matrix spike duplicate analysis of sample 232825 had high surrogate recovery for 2,4,6 tribromophenol.

The recoveries of the surrogate terphenyl d-14 were high for samples 232824, 232825, and the matrix spike and spike duplicate of sample 232825.

Several of the results for the matrix spike and matrix spike duplicate samples received "E" qualifiers which indicate that those compounds exceeded the calibration range of the instrument. The analyses were not repeated.

The sample extracts were cleaned using gel permeation chromatography (GPC). The GPC data are found on pages 374 through 388 of Section IV. Included are the ultraviolet (UV) traces of the GPC calibration, the UV traces of the samples, and the quantitation report and chromatogram from the analysis of any GPC blank.

Except as noted, all quality control requirements were met during the course of these analyses.

RELEASE OF THE DATA CONTAINED IN THIS REPORT HAS BEEN
AUTHORIZED BY THE LABORATORY MANAGER OR THE MANAGER'S
DESIGNEE

Donald L. Dufort 11/6/95
LABORATORY MANAGER DATE

John K. [Signature] 11/3/95
PREPARED BY DATE

SAMPLE CROSS REFERENCE

V2.05

GRAND JUNCTION PROJECTS OFFICE ANALYTICAL LABORATORY

REQUISITION(S) : 14325

CUSTOMER ID	TICKET	LAB ID
=====	=====	=====
#1	NBF 226	232823
#3	NBF 227	232824
#4	NBF 228	232825
#2	NBF 231	232826
#2	NBF 232	232827
#6	NBF 229	232828
#5	NBF 230	232829

ANALYTICAL DATA SUMMARY

This section contains 59 pages, not including this page.

ANALYTICAL RESULTS

(SECTION I)

Customer ID: #1
Ticket ID: NBF 226

Date: November 1, 1995
Lab ID: 232823

Requestor: MIKE GARDNER
Sample Matrix: SOIL
Project Number: PP000000EC

Case: 14325
Date Received: Oct 18, 1995
Date Collected: Oct 16, 1995

ANALYSIS REQUESTED	RESULTS QUALI's	ERROR UNITS	DATE ANALYZED	METHOD OF ANALYSIS
Silver	~0.37 B	MG/KG	10/25/95	AS-5 R05
Arsenic	34.3	MG/KG	10/25/95	AS-2 R06
Beryllium	0.94	MG/KG	10/25/95	AS-5 R05
Cadmium	~0.83 B	MG/KG	10/25/95	AS-6 R05
Chromium	14.2	MG/KG	10/25/95	AS-5 R05
Copper	547	MG/KG	10/25/95	AS-5 R05
Mercury	~0.02 B	MG/KG	10/20/95	AS-3 R04
Nickel	25.9	MG/KG	10/25/95	AS-5 R05
Lead	30.8 *	MG/KG	10/25/95	AS-6 R05
Antimony	<0.10 UN	MG/KG	10/25/95	AS-6 R05
Selenium	2.0 *	MG/KG	10/25/95	AS-2 R06
Percent Solids	97.11	%	10/19/95	M-8 R00
Thallium	~0.73 B	MG/KG	10/25/95	AS-6 R05
Zinc	153 EN	MG/KG	10/25/95	AS-5 R05

ANALYTICAL RESULTS

(SECTION 1)

Customer ID: #3
Ticket ID: NBF 227

Date: November 1, 1995
Lab ID: 232824

Requestor: MIKE GARDNER
Sample Matrix: SOIL
Project Number: PP00000EC

Case: 14325
Date Received: Oct 18, 1995
Date Collected: Oct 16, 1995

ANALYSIS REQUESTED	RESULTS QUALI's	ERROR UNITS	DATE ANALYZED	METHOD OF ANALYSIS
Silver	~0.23 B	MG/KG	10/25/95	AS-5 R05
Arsenic	5.9 S	MG/KG	10/25/95	AS-2 R06
Beryllium	0.77	MG/KG	10/25/95	AS-5 R05
Cadmium	<0.12 U	MG/KG	10/25/95	AS-6 R05
Chromium	10.5	MG/KG	10/25/95	AS-5 R05
Copper	10.7	MG/KG	10/25/95	AS-5 R05
Mercury	0.07	MG/KG	10/20/95	AS-3 R04
Nickel	11.9	MG/KG	10/25/95	AS-5 R05
Lead	14.5 *	MG/KG	10/25/95	AS-6 R05
Antimony	~0.18 BN	MG/KG	10/25/95	AS-6 R05
Selenium	~0.41 BW*	MG/KG	10/25/95	AS-2 R06
Percent Solids	85.93	%	10/19/95	M-8 R00
Thallium	~0.13 B	MG/KG	10/25/95	AS-6 R05
Zinc	50.4 EN	MG/KG	10/25/95	AS-5 R05

ANALYTICAL RESULTS

(SECTION 1)

Customer ID: #4
Ticket ID: NBF 228

Date: November 1, 1995
Lab ID: 232825

Requestor: MIKE GARDNER
Sample Matrix: SOIL
Project Number: PP000000EC

Case: 14325
Date Received: Oct 18, 1995
Date Collected: Oct 16, 1995

ANALYSIS REQUESTED	RESULTS QUALI's	ERROR UNITS	DATE ANALYZED	METHOD OF ANALYSIS
Silver	<0.21 U	MG/KG	10/25/95	AS-5 R05
Arsenic	3.4 S	MG/KG	10/25/95	AS-2 R06
Beryllium	0.56	MG/KG	10/25/95	AS-5 R05
Cadmium	<0.11 U	MG/KG	10/25/95	AS-6 R05
Chromium	11.3	MG/KG	10/25/95	AS-5 R05
Copper	12.0	MG/KG	10/25/95	AS-5 R05
Mercury	<0.02 U	MG/KG	10/20/95	AS-3 R04
Nickel	9.2	MG/KG	10/25/95	AS-5 R05
Lead	7.2 *	MG/KG	10/25/95	AS-6 R05
Antimony	~0.19 BN	MG/KG	10/25/95	AS-6 R05
Selenium	<0.32 UW*	MG/KG	10/25/95	AS-2 R06
Percent Solids	94.06	%	10/19/95	M-8 R00
Thallium	~0.12 B	MG/KG	10/25/95	AS-6 R05
Zinc	35.5 EN	MG/KG	10/25/95	AS-5 R05

ANALYTICAL RESULTS

(SECTION 1)

Customer ID: #2
Ticket ID: NBF 231

Date: November 1, 1995
Lab ID: 232826

Requestor: MIKE GARDNER
Sample Matrix: SOIL
Project Number: PP00000EC

Case: 14325
Date Received: Oct 18, 1995
Date Collected: Oct 17, 1995

ANALYSIS REQUESTED	RESULTS QUALI'S	ERROR UNITS	DATE ANALYZED	METHOD OF ANALYSIS
Silver	2.0	MG/KG	10/25/95	AS-5 R05
Arsenic	18.4	MG/KG	10/25/95	AS-2 R06
Beryllium	0.85	MG/KG	10/25/95	AS-5 R05
Cadmium	<0.10 U	MG/KG	10/25/95	AS-6 R05
Chromium	14.8	MG/KG	10/25/95	AS-5 R05
Copper	182	MG/KG	10/25/95	AS-5 R05
Mercury	<0.02 U	MG/KG	10/20/95	AS-3 R04
Nickel	11.8	MG/KG	10/25/95	AS-5 R05
Lead	241 *	MG/KG	10/25/95	AS-6 R05
Antimony	~0.28 BN	MG/KG	10/25/95	AS-6 R05
Selenium	~0.41 BW*	MG/KG	10/25/95	AS-2 R06
Percent Solids	97.03	%	10/19/95	M-8 R00
Thallium	~0.22 B	MG/KG	10/25/95	AS-6 R05
Zinc	1690 EN	MG/KG	10/25/95	AS-5 R05

ANALYTICAL RESULTS

SECTION 1

Customer ID: #2
Ticket ID: NBF 232

Date: November 1, 1995
Lab ID: 232827

Requestor: MIKE GARDNER
Sample Matrix: SOIL
Project Number: PP00000EC

Case: 14325
Date Received: Oct 18, 1995
Date Collected: Oct 17, 1995

ANALYSIS REQUESTED	RESULTS QUALI's	ERROR UNITS	DATE ANALYZED	METHOD OF ANALYSIS
Silver	1.7		MG/KG 10/25/95	AS-5 R05
Arsenic	12.4		MG/KG 10/25/95	AS-2 R06
Beryllium	0.81		MG/KG 10/25/95	AS-5 R05
Cadmium	<0.10 U		MG/KG 10/25/95	AS-6 R05
Chromium	13.5		MG/KG 10/25/95	AS-5 R05
Copper	161		MG/KG 10/25/95	AS-5 R05
Mercury	<0.02 U		MG/KG 10/27/95	AS-3 R04
Nickel	10.9		MG/KG 10/25/95	AS-5 R05
Lead	190 *		MG/KG 10/25/95	AS-6 R05
Antimony	~0.33 BN		MG/KG 10/25/95	AS-6 R05
Selenium	0.56 +*		MG/KG 10/25/95	AS-2 R06
Percent Solids	97.68		% 10/19/95	M-8 R00
Thallium	~0.22 B		MG/KG 10/25/95	AS-6 R05
Zinc	1290 EN		MG/KG 10/25/95	AS-5 R05

Grand Junction Projects Office Analytical Laboratory

1.01

ANALYTICAL RESULTS

(SECTION 1)

Customer ID: #6
Ticket ID: NBF 229

Date: November 1, 1995
Lab ID: 232828

Requestor: MIKE GARDNER
Sample Matrix: SOIL
Project Number: PP00000EC

Case: 14325
Date Received: Oct 18, 1995
Date Collected: Oct 16, 1995

ANALYSIS REQUESTED	RESULTS QUALITY'S	ERROR UNITS	DATE ANALYZED	METHOD OF ANALYSIS
pH	8.3		10/19/95	H-4 R03

ANALYTICAL RESULTS

(SECTION 1)

Customer ID: #5
Ticket ID: NBF 230

Date: November 1, 1995
Lab ID: 232829

Requestor: MIKE GARDNER
Sample Matrix: SOIL
Project Number: PP00000EC

Case: 14325
Date Received: Oct 18, 1995
Date Collected: Oct 16, 1995

ANALYSIS REQUESTED	RESULTS QUALI's	ERROR UNITS	DATE ANALYZED	METHOD OF ANALYSIS
pH	7.7		10/19/95	H-4 R03

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO.

21

NBF226

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232823

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: 232823

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/21/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

74-87-3-----	Chloromethane	51	U
75-01-4-----	Vinyl Chloride	51	U
74-83-9-----	Bromomethane	51	U
75-00-3-----	Chloroethane	51	U
67-64-1-----	Acetone	95	B
75-71-8-----	Dichlorodifluoromethane	26	U
74-88-4-----	Iodomethane	14	BJ
354-58-5-----	Trichlorotrifluoroethane	26	U
75-69-4-----	Trichlorofluoromethane	26	U
75-09-2-----	Methylene Chloride	26	U
75-35-4-----	1,1-Dichloroethene	26	U
75-15-0-----	Carbon Disulfide	26	U
156-60-5-----	trans-1,2-Dichloroethene	26	U
75-34-3-----	1,1-Dichloroethane	26	U
156-59-2-----	cis-1,2-Dichloroethene	26	U
67-66-3-----	Chloroform	26	U
107-06-2-----	1,2-Dichloroethane	26	U
563-58-6-----	1,1-Dichloropropene	26	U
78-93-3-----	2-Butanone	51	U
594-20-7-----	2,2-Dichloropropane	26	U
71-55-6-----	1,1,1-Trichloroethane	26	U
56-23-5-----	Carbon Tetrachloride	26	U
79-01-6-----	Trichloroethene	26	U
78-87-5-----	1,2-Dichloropropane	26	U
71-43-2-----	Benzene	26	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO.

22

NBF226

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232823

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: 232823

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/21/95

C Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

74-95-3-----	Dibromomethane	26	U
75-27-4-----	Bromodichloromethane	26	U
10061-02-6-----	trans-1,3-Dichloropropene	26	U
10061-01-5-----	cis-1,3-Dichloropropene	26	U
79-00-5-----	1,1,2-Trichloroethane	26	U
142-28-9-----	1,3-Dichloropropane	26	U
124-48-1-----	Chlorodibromomethane	26	U
108-10-1-----	4-Methyl-2-Pentanone	51	U
108-88-3-----	Toluene	26	U
591-78-6-----	2-Hexanone	51	U
106-93-4-----	1,2-Dibromoethane	26	U
127-18-4-----	Tetrachloroethene	26	U
108-90-7-----	Chlorobenzene	26	U
630-20-6-----	1,1,1,2-Tetrachloroethane	26	U
100-41-4-----	Ethylbenzene	26	U
1330-20-7-----	m,p-Xylene	26	U
95-47-6-----	o-Xylene	26	U
100-42-5-----	Styrene	26	U
75-25-2-----	Bromoform	26	U
79-34-5-----	1,1,2,2-Tetrachloroethane	26	U
96-18-4-----	1,2,3-Trichloropropane	26	U
98-82-8-----	Isopropylbenzene	26	U
108-86-1-----	Bromobenzene	26	U
103-65-1-----	n-Propylbenzene	26	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NBF226

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232823

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: 232823

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/21/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

95-49-8-----2-Chlorotoluene	26	U
106-43-4-----4-Chlorotoluene	26	U
108-67-8-----1,3,5-Trimethylbenzene	26	U
98-06-6-----tert-Butylbenzene	26	U
95-63-6-----1,2,4-Trimethylbenzene	26	U
135-98-8-----sec-Butylbenzene	26	U
541-73-1-----1,3-Dichlorobenzene	26	U
106-46-7-----1,4-Dichlorobenzene	26	U
25155-15-1-----p-Isopropyltoluene	26	U
95-50-1-----1,2-Dichlorobenzene	26	U
104-51-8-----n-Butylbenzene	26	U
96-12-8-----1,2-Dibromo-3-Chloropropane	26	U

(SECTION III)

24

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NBF226

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232823

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: 232823

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/21/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III) EPA SAMPLE NO. 37

NBF_226

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232823RE

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: 232823RE

Level: (low/med) LOW

Date Received: 10/24/95 10/27/95

Moisture: not dec. 2

Date Analyzed: 10/24/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

74-87-3-----	Chloromethane	51	U
75-01-4-----	Vinyl Chloride	51	U
74-83-9-----	Bromomethane	51	U
75-00-3-----	Chloroethane	51	U
67-64-1-----	Acetone	160	B
75-71-8-----	Dichlorodifluoromethane	26	U
74-88-4-----	Iodomethane	8	BJ
354-58-5-----	Trichlorotrifluoroethane	26	U
75-69-4-----	Trichlorofluoromethane	26	U
75-09-2-----	Methylene Chloride	26	U
75-35-4-----	1,1-Dichloroethene	26	U
75-15-0-----	Carbon Disulfide	26	U
156-60-5-----	trans-1,2-Dichloroethene	26	U
75-34-3-----	1,1-Dichloroethane	26	U
156-59-2-----	cis-1,2-Dichloroethene	26	U
67-66-3-----	Chloroform	26	U
107-06-2-----	1,2-Dichloroethane	26	U
563-58-6-----	1,1-Dichloropropene	26	U
78-93-3-----	2-Butanone	51	U
594-20-7-----	2,2-Dichloropropane	26	U
71-55-6-----	1,1,1-Trichloroethane	26	U
56-23-5-----	Carbon Tetrachloride	26	U
79-01-6-----	Trichloroethene	26	U
78-87-5-----	1,2-Dichloropropane	26	U
71-43-2-----	Benzene	26	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO.

38

NBF_226

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232823RE

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: 232823RE

Level: (low/med) LOW

Date Received: 10/24/95 ¹⁵ 2⁸ 12/15

Moisture: not dec. 2

Date Analyzed: 10/24/95

C Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

74-95-3-----	Dibromomethane	26	U
75-27-4-----	Bromodichloromethane	26	U
10061-02-6-----	trans-1,3-Dichloropropene	26	U
10061-01-5-----	cis-1,3-Dichloropropene	26	U
79-00-5-----	1,1,2-Trichloroethane	26	U
142-28-9-----	1,3-Dichloropropane	26	U
124-48-1-----	Chlorodibromomethane	26	U
108-10-1-----	4-Methyl-2-Pentanone	51	U
108-88-3-----	Toluene	26	U
591-78-6-----	2-Hexanone	51	U
106-93-4-----	1,2-Dibromoethane	26	U
127-18-4-----	Tetrachloroethene	26	U
108-90-7-----	Chlorobenzene	26	U
630-20-6-----	1,1,1,2-Tetrachloroethane	26	U
100-41-4-----	Ethylbenzene	26	U
1330-20-7-----	m,p-Xylene	26	U
95-47-6-----	o-Xylene	26	U
100-42-5-----	Styrene	26	U
75-25-2-----	Bromoform	26	U
79-34-5-----	1,1,2,2-Tetrachloroethane	26	U
96-18-4-----	1,2,3-Trichloropropane	26	U
98-82-8-----	Isopropylbenzene	26	U
108-86-1-----	Bromobenzene	26	U
103-65-1-----	n-Propylbenzene	26	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO.

39

NBF_226

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232823RE

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: 232823RE

Level: (low/med) LOW

Date Received: 10/24/95 ¹⁵ at 12:15

Moisture: not dec. 2

Date Analyzed: 10/24/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

95-49-8-----	2-Chlorotoluene	26	U
106-43-4-----	4-Chlorotoluene	26	U
108-67-8-----	1,3,5-Trimethylbenzene	26	U
98-06-6-----	tert-Butylbenzene	26	U
95-63-6-----	1,2,4-Trimethylbenzene	26	U
135-98-8-----	sec-Butylbenzene	26	U
541-73-1-----	1,3-Dichlorobenzene	26	U
106-46-7-----	1,4-Dichlorobenzene	26	U
25155-15-1-----	p-Isopropyltoluene	26	U
95-50-1-----	1,2-Dichlorobenzene	26	U
104-51-8-----	n-Butylbenzene	26	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	26	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

(SECTION III)

EPA SAMPLE NO.

40

NBF_226

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232723RE

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: 232823RE

Level: (low/med) LOW

Date Received: 10/24/95 ¹⁸ 10/27/95

% Moisture: not dec. 2

Date Analyzed: 10/24/95

C Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO. 53

NBF_227

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232824

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 232824

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 14

Date Analyzed: 10/21/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

74-87-3	Chloromethane	12	U
75-01-4	Vinyl Chloride	12	U
74-83-9	Bromomethane	12	U
75-00-3	Chloroethane	12	U
67-64-1	Acetone	12	U
75-71-8	Dichlorodifluoromethane	6	U
74-88-4	Iodomethane	5	BJ
354-58-5	Trichlorotrifluoroethane	6	U
75-69-4	Trichlorofluoromethane	6	U
75-09-2	Methylene Chloride	6	U
75-35-4	1,1-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
563-58-6	1,1-Dichloropropene	6	U
78-93-3	2-Butanone	12	U
594-20-7	2,2-Dichloropropane	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
71-43-2	Benzene	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO.

NBF_227

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232824

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 232824

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 14

Date Analyzed: 10/21/95

C Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

74-95-3-----	Dibromomethane	6	U
75-27-4-----	Bromodichloromethane	6	U
10061-02-6-----	trans-1,3-Dichloropropene	6	U
10061-01-5-----	cis-1,3-Dichloropropene	6	U
79-00-5-----	1,1,2-Trichloroethane	6	U
142-28-9-----	1,3-Dichloropropane	6	U
124-48-1-----	Chlorodibromomethane	6	U
108-10-1-----	4-Methyl-2-Pentanone	12	U
108-88-3-----	Toluene	6	U
591-78-6-----	2-Hexanone	12	U
106-93-4-----	1,2-Dibromoethane	6	U
127-18-4-----	Tetrachloroethene	6	U
108-90-7-----	Chlorobenzene	6	U
630-20-6-----	1,1,1,2-Tetrachloroethane	6	U
100-41-4-----	Ethylbenzene	6	U
1330-20-7-----	m,p-Xylene	6	U
95-47-6-----	o-Xylene	6	U
100-42-5-----	Styrene	6	U
75-25-2-----	Bromoform	6	U
79-34-5-----	1,1,2,2-Tetrachloroethane	6	U
96-18-4-----	1,2,3-Trichloropropane	6	U
98-82-8-----	Isopropylbenzene	6	U
108-86-1-----	Bromobenzene	6	U
103-65-1-----	n-Propylbenzene	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO.

NBF_227

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232824

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 232824

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 14

Date Analyzed: 10/21/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

95-49-8-----	2-Chlorotoluene	6	U
106-43-4-----	4-Chlorotoluene	6	U
108-67-8-----	1,3,5-Trimethylbenzene	6	U
98-06-6-----	tert-Butylbenzene	6	U
95-63-6-----	1,2,4-Trimethylbenzene	6	U
135-98-8-----	sec-Butylbenzene	6	U
541-73-1-----	1,3-Dichlorobenzene	6	U
106-46-7-----	1,4-Dichlorobenzene	6	U
25155-15-1-----	p-Isopropyltoluene	6	U
95-50-1-----	1,2-Dichlorobenzene	6	U
104-51-8-----	n-Butylbenzene	6	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	6	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

(SECTION III)

EPA SAMPLE NO.

56

NBF_227

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232824

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 232824

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 14

Date Analyzed: 10/21/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1. 541-05-9	Hexamethylcyclotrisiloxane	15.72	14	BJN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO.

NBF_228

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232825

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 232825

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 8

Date Analyzed: 10/24/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

74-87-3-----	Chloromethane	11	U
75-01-4-----	Vinyl Chloride	11	U
74-83-9-----	Bromomethane	11	U
75-00-3-----	Chloroethane	11	U
67-64-1-----	Acetone	11	U
75-71-8-----	Dichlorodifluoromethane	5	U
74-88-4-----	Iodomethane	5	U
354-58-5-----	Trichlorotrifluoroethane	5	U
75-69-4-----	Trichlorofluoromethane	5	U
75-09-2-----	Methylene Chloride	5	U
75-35-4-----	1,1-Dichloroethene	5	U
75-15-0-----	Carbon Disulfide	5	U
156-60-5-----	trans-1,2-Dichloroethene	5	U
75-34-3-----	1,1-Dichloroethane	5	U
156-59-2-----	cis-1,2-Dichloroethene	5	U
67-66-3-----	Chloroform	5	U
107-06-2-----	1,2-Dichloroethane	5	U
563-58-6-----	1,1-Dichloropropene	5	U
78-93-3-----	2-Butanone	11	U
594-20-7-----	2,2-Dichloropropane	5	U
71-55-6-----	1,1,1-Trichloroethane	5	U
56-23-5-----	Carbon Tetrachloride	5	U
79-01-6-----	Trichloroethene	5	U
78-87-5-----	1,2-Dichloropropane	5	U
71-43-2-----	Benzene	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO.

71

NBF_228

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232825

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 232825

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 8

Date Analyzed: 10/24/95

C Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

74-95-3-----	Dibromomethane	5	U
75-27-4-----	Bromodichloromethane	5	U
10061-02-6-----	trans-1,3-Dichloropropene	5	U
10061-01-5-----	cis-1,3-Dichloropropene	5	U
79-00-5-----	1,1,2-Trichloroethane	5	U
142-28-9-----	1,3-Dichloropropane	5	U
124-48-1-----	Chlorodibromomethane	5	U
108-10-1-----	4-Methyl-2-Pentanone	11	U
108-88-3-----	Toluene	5	U
591-78-6-----	2-Hexanone	11	U
106-93-4-----	1,2-Dibromoethane	5	U
127-18-4-----	Tetrachloroethene	5	U
108-90-7-----	Chlorobenzene	5	U
630-20-6-----	1,1,1,2-Tetrachloroethane	5	U
100-41-4-----	Ethylbenzene	5	U
1330-20-7-----	m,p-Xylene	5	U
95-47-6-----	o-Xylene	5	U
100-42-5-----	Styrene	5	U
75-25-2-----	Bromoform	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U
96-18-4-----	1,2,3-Trichloropropane	5	U
98-82-8-----	Isopropylbenzene	5	U
108-86-1-----	Bromobenzene	5	U
103-65-1-----	n-Propylbenzene	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO.

NBF_228

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232825

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 232825

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 8

Date Analyzed: 10/24/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

95-49-8-----	2-Chlorotoluene	5	U
106-43-4-----	4-Chlorotoluene	5	U
108-67-8-----	1,3,5-Trimethylbenzene	5	U
98-06-6-----	tert-Butylbenzene	5	U
95-63-6-----	1,2,4-Trimethylbenzene	5	U
135-98-8-----	sec-Butylbenzene	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
25155-15-1-----	p-Isopropyltoluene	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
104-51-8-----	n-Butylbenzene	5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

(SECTION III) EPA SAMPLE NO. 73

NBF_228

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232825

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 232825

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 8

Date Analyzed: 10/24/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1. 541-05-9	Cyclotrisiloxane, hexamethyl	15.72	11	BJN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO. 86

NBF_231

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232826

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: 232826

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/21/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

74-87-3-----	Chloromethane	51	U
75-01-4-----	Vinyl Chloride	51	U
74-83-9-----	Bromomethane	51	U
75-00-3-----	Chloroethane	51	U
67-64-1-----	Acetone	72	B
75-71-8-----	Dichlorodifluoromethane	26	U
74-88-4-----	Iodomethane	24	BJ
354-58-5-----	Trichlorotrifluoroethane	26	U
75-69-4-----	Trichlorofluoromethane	26	U
75-09-2-----	Methylene Chloride	26	U
75-35-4-----	1,1-Dichloroethene	26	U
75-15-0-----	Carbon Disulfide	26	U
156-60-5-----	trans-1,2-Dichloroethene	26	U
75-34-3-----	1,1-Dichloroethane	26	U
156-59-2-----	cis-1,2-Dichloroethene	26	U
67-66-3-----	Chloroform	26	U
107-06-2-----	1,2-Dichloroethane	26	U
563-58-6-----	1,1-Dichloropropene	26	U
78-93-3-----	2-Butanone	51	U
594-20-7-----	2,2-Dichloropropane	26	U
71-55-6-----	1,1,1-Trichloroethane	26	U
56-23-5-----	Carbon Tetrachloride	26	U
79-01-6-----	Trichloroethene	26	U
78-87-5-----	1,2-Dichloropropane	26	U
71-43-2-----	Benzene	26	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO.

87

NBF_231

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232826

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: 232826

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/21/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

74-95-3-----	Dibromomethane	26	U
75-27-4-----	Bromodichloromethane	26	U
10061-02-6-----	trans-1,3-Dichloropropene	26	U
10061-01-5-----	cis-1,3-Dichloropropene	26	U
79-00-5-----	1,1,2-Trichloroethane	26	U
142-28-9-----	1,3-Dichloropropane	26	U
124-48-1-----	Chlorodibromomethane	26	U
108-10-1-----	4-Methyl-2-Pentanone	51	U
108-88-3-----	Toluene	26	U
591-78-6-----	2-Hexanone	51	U
106-93-4-----	1,2-Dibromoethane	26	U
127-18-4-----	Tetrachloroethene	26	U
108-90-7-----	Chlorobenzene	26	U
630-20-6-----	1,1,1,2-Tetrachloroethane	26	U
100-41-4-----	Ethylbenzene	26	U
1330-20-7-----	m,p-Xylene	26	U
95-47-6-----	o-Xylene	26	U
100-42-5-----	Styrene	26	U
75-25-2-----	Bromoform	26	U
79-34-5-----	1,1,2,2-Tetrachloroethane	26	U
96-18-4-----	1,2,3-Trichloropropane	26	U
98-82-8-----	Isopropylbenzene	26	U
108-86-1-----	Bromobenzene	26	U
103-65-1-----	n-Propylbenzene	26	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO.

NBF_231

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232826

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: 232826

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/21/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

95-49-8-----2-Chlorotoluene	26	U
106-43-4-----4-Chlorotoluene	26	U
108-67-8-----1,3,5-Trimethylbenzene	26	U
98-06-6-----tert-Butylbenzene	26	U
95-63-6-----1,2,4-Trimethylbenzene	26	U
135-98-8-----sec-Butylbenzene	26	U
541-73-1-----1,3-Dichlorobenzene	26	U
106-46-7-----1,4-Dichlorobenzene	26	U
25155-15-1-----p-Isopropyltoluene	26	U
95-50-1-----1,2-Dichlorobenzene	26	U
104-51-8-----n-Butylbenzene	26	U
96-12-8-----1,2-Dibromo-3-Chloropropane	26	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

(SECTION III)

EPA SAMPLE NO. 89

NBF_231

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232826

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: 232826

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/21/95

GC Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1. 541-05-9	Hexamethylcyclotrisiloxane	15.68	100	BJN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO. 104

NBF_231RE

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232826RE

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: 232826RE

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/24/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

74-87-3	Chloromethane	51	U
75-01-4	Vinyl Chloride	51	U
74-83-9	Bromomethane	51	U
75-00-3	Chloroethane	51	U
67-64-1	Acetone	83	B
75-71-8	Dichlorodifluoromethane	26	U
74-88-4	Iodomethane	7	BJ
354-58-5	Trichlorotrifluoroethane	26	U
75-69-4	Trichlorofluoromethane	26	U
75-09-2	Methylene Chloride	26	U
75-35-4	1,1-Dichloroethene	26	U
75-15-0	Carbon Disulfide	26	U
156-60-5	trans-1,2-Dichloroethene	26	U
75-34-3	1,1-Dichloroethane	26	U
156-59-2	cis-1,2-Dichloroethene	26	U
67-66-3	Chloroform	26	U
107-06-2	1,2-Dichloroethane	26	U
563-58-6	1,1-Dichloropropene	26	U
78-93-3	2-Butanone	51	U
594-20-7	2,2-Dichloropropane	26	U
71-55-6	1,1,1-Trichloroethane	26	U
56-23-5	Carbon Tetrachloride	26	U
79-01-6	Trichloroethene	26	U
78-87-5	1,2-Dichloropropane	26	U
71-43-2	Benzene	26	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO. 105

NBF_231RE

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232826RE

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: 232826RE

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/24/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

74-95-3-----	Dibromomethane	26	U
75-27-4-----	Bromodichloromethane	26	U
10061-02-6-----	trans-1,3-Dichloropropene	26	U
10061-01-5-----	cis-1,3-Dichloropropene	26	U
79-00-5-----	1,1,2-Trichloroethane	26	U
142-28-9-----	1,3-Dichloropropane	26	U
124-48-1-----	Chlorodibromomethane	26	U
108-10-1-----	4-Methyl-2-Pentanone	51	U
108-88-3-----	Toluene	26	U
591-78-6-----	2-Hexanone	51	U
106-93-4-----	1,2-Dibromoethane	26	U
127-18-4-----	Tetrachloroethene	26	U
108-90-7-----	Chlorobenzene	26	U
630-20-6-----	1,1,1,2-Tetrachloroethane	26	U
100-41-4-----	Ethylbenzene	26	U
1330-20-7-----	m,p-Xylene	26	U
95-47-6-----	o-Xylene	26	U
100-42-5-----	Styrene	26	U
75-25-2-----	Bromoform	26	U
79-34-5-----	1,1,2,2-Tetrachloroethane	26	U
96-18-4-----	1,2,3-Trichloropropane	26	U
98-82-8-----	Isopropylbenzene	26	U
108-86-1-----	Bromobenzene	26	U
103-65-1-----	n-Propylbenzene	26	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO. 106

NBF_231RE

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232826RE

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: 232826RE

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/24/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

95-49-8-----	2-Chlorotoluene	26	U
106-43-4-----	4-Chlorotoluene	26	U
108-67-8-----	1,3,5-Trimethylbenzene	26	U
98-06-6-----	tert-Butylbenzene	26	U
95-63-6-----	1,2,4-Trimethylbenzene	26	U
135-98-8-----	sec-Butylbenzene	26	U
541-73-1-----	1,3-Dichlorobenzene	26	U
106-46-7-----	1,4-Dichlorobenzene	26	U
25155-15-1-----	p-Isopropyltoluene	26	U
95-50-1-----	1,2-Dichlorobenzene	26	U
104-51-8-----	n-Butylbenzene	26	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	26	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

(SECTION III)

107
EPA SAMPLE NO.

NBF_231RE

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232826RE

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: 232826RE

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/24/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO. 120

NBF_232

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232827

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 232827

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/21/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	32	B
75-71-8	Dichlorodifluoromethane	5	U
74-88-4	Iodomethane	3	BJ
354-58-5	Trichlorotrifluoroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-09-2	Methylene Chloride	5	U
75-35-4	1,1-Dichloroethene	5	U
75-15-0	Carbon Disulfide	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
78-93-3	2-Butanone	8	J
594-20-7	2,2-Dichloropropane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
71-43-2	Benzene	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SECTION III EPA SAMPLE NO. 121

NBF_232

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232827

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 232827

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/21/95

C Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

74-95-3-----Dibromomethane	5	U
75-27-4-----Bromodichloromethane	5	U
10061-02-6-----trans-1,3-Dichloropropene	5	U
10061-01-5-----cis-1,3-Dichloropropene	5	U
79-00-5-----1,1,2-Trichloroethane	5	U
142-28-9-----1,3-Dichloropropane	5	U
124-48-1-----Chlorodibromomethane	5	U
108-10-1-----4-Methyl-2-Pentanone	10	U
108-88-3-----Toluene	5	U
591-78-6-----2-Hexanone	10	U
106-93-4-----1,2-Dibromoethane	5	U
127-18-4-----Tetrachloroethene	5	U
108-90-7-----Chlorobenzene	5	U
630-20-6-----1,1,1,2-Tetrachloroethane	5	U
100-41-4-----Ethylbenzene	5	U
1330-20-7-----m,p-Xylene	5	U
95-47-6-----o-Xylene	5	U
100-42-5-----Styrene	5	U
75-25-2-----Bromoform	5	U
79-34-5-----1,1,2,2-Tetrachloroethane	5	U
96-18-4-----1,2,3-Trichloropropane	5	U
98-82-8-----Isopropylbenzene	5	U
108-86-1-----Bromobenzene	5	U
103-65-1-----n-Propylbenzene	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION 11)

EPA SAMPLE NO.

NBF_232

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232827

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 232827

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/21/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

95-49-8-----2-Chlorotoluene	5	U
106-43-4-----4-Chlorotoluene	5	U
108-67-8-----1,3,5-Trimethylbenzene	5	U
98-06-6-----tert-Butylbenzene	5	U
95-63-6-----1,2,4-Trimethylbenzene	5	U
135-98-8-----sec-Butylbenzene	5	U
541-73-1-----1,3-Dichlorobenzene	5	U
106-46-7-----1,4-Dichlorobenzene	5	U
25155-15-1-----p-Isopropyltoluene	5	U
95-50-1-----1,2-Dichlorobenzene	5	U
104-51-8-----n-Butylbenzene	5	U
96-12-8-----1,2-Dibromo-3-Chloropropane	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SECTION III

EPA SAMPLE NO.

123

NBF_232

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232827

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 232827

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/21/95

C Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO. 137

Lab Name: CN GEOTECH

Contract:

NBF_232RE

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232827RE

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 232827RE

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/24/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	38	B
75-71-8	Dichlorodifluoromethane	5	U
74-88-4	Iodomethane	5	U
354-58-5	Trichlorotrifluoroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-09-2	Methylene Chloride	5	U
75-35-4	1,1-Dichloroethene	5	U
75-15-0	Carbon Disulfide	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
78-93-3	2-Butanone	5	J
594-20-7	2,2-Dichloropropane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
71-43-2	Benzene	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO.

138

NBF_232RE

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232827RE

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 232827RE

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/24/95

C Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

74-95-3-----	Dibromomethane	5	U
75-27-4-----	Bromodichloromethane	5	U
10061-02-6-----	trans-1,3-Dichloropropene	5	U
10061-01-5-----	cis-1,3-Dichloropropene	5	U
79-00-5-----	1,1,2-Trichloroethane	5	U
142-28-9-----	1,3-Dichloropropane	5	U
124-48-1-----	Chlorodibromomethane	5	U
108-10-1-----	4-Methyl-2-Pentanone	10	U
108-88-3-----	Toluene	5	U
591-78-6-----	2-Hexanone	10	U
106-93-4-----	1,2-Dibromoethane	5	U
127-18-4-----	Tetrachloroethene	5	U
108-90-7-----	Chlorobenzene	5	U
630-20-6-----	1,1,1,2-Tetrachloroethane	5	U
100-41-4-----	Ethylbenzene	5	U
1330-20-7-----	m,p-Xylene	5	U
95-47-6-----	o-Xylene	5	U
100-42-5-----	Styrene	5	U
75-25-2-----	Bromoform	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U
96-18-4-----	1,2,3-Trichloropropane	5	U
98-82-8-----	Isopropylbenzene	5	U
108-86-1-----	Bromobenzene	5	U
103-65-1-----	n-Propylbenzene	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO:

NBF_232RE

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232827RE

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 232827RE

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/24/95

Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

95-49-8-----2-Chlorotoluene	5	U
106-43-4-----4-Chlorotoluene	5	U
108-67-8-----1,3,5-Trimethylbenzene	5	U
98-06-6-----tert-Butylbenzene	5	U
95-63-6-----1,2,4-Trimethylbenzene	5	U
135-98-8-----sec-Butylbenzene	5	U
541-73-1-----1,3-Dichlorobenzene	5	U
106-46-7-----1,4-Dichlorobenzene	5	U
25155-15-1-----p-Isopropyltoluene	5	U
95-50-1-----1,2-Dichlorobenzene	5	U
104-51-8-----n-Butylbenzene	5	U
96-12-8-----1,2-Dibromo-3-Chloropropane	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

(SECTION III)

140
EPA SAMPLE NO.

NBF_232RE

Lab Name: CN GEOTECH

Contract:

Lab Code:

Case No.: 14325

SAS No.:

SDG No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 232827RE

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: 232827RE

Level: (low/med) LOW

Date Received: 10/18/95

Moisture: not dec. 2

Date Analyzed: 10/24/95

C Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1. 541-05-9	Cyclotrisiloxane, hexamethyl	15.73	11	BJN

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

EPA SAMPLE NO.

Lab Name: CN GEOTECH

Contract: _____

NBF_226

Lab Code: _____ Case No.: 14325

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOILLab Sample ID: 232823Sample wt/vol: 1.00 (g/mL) GLab File ID: 232823Level: (low/med) MEDDate Received: 10/18/95% Moisture: 0 decanted: (Y/N) NDate Extracted: 10/19/95Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 10/23/95Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) Y pH: _____

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

62-75-9-----	N-Nitrosodimethylamine	10000	U
62-53-3-----	Aniline	10000	U
108-95-2-----	Phenol	10000	U
111-44-4-----	bis(2-Chloroethyl) Ether	10000	U
95-57-8-----	2-Chlorophenol	10000	U
541-73-1-----	1,3-Dichlorobenzene	10000	U
106-46-7-----	1,4-Dichlorobenzene	10000	U
100-51-6-----	Benzyl Alcohol	10000	U
95-50-1-----	1,2-Dichlorobenzene	10000	U
95-48-7-----	2-Methylphenol	10000	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	10000	U
106-44-5-----	4-Methylphenol	10000	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	10000	U
67-72-1-----	Hexachloroethane	10000	U
98-95-3-----	Nitrobenzene	10000	U
78-59-1-----	Isophorone	10000	U
88-75-5-----	2-Nitrophenol	10000	U
105-67-9-----	2,4-Dimethylphenol	10000	U
65-85-0-----	Benzoic Acid	25000	U
111-91-1-----	bis(2-Chloroethoxy)Methane	10000	U
120-83-2-----	2,4-Dichlorophenol	10000	U
120-82-1-----	1,2,4-Trichlorobenzene	10000	U
91-20-3-----	Naphthalene	10000	U
106-47-8-----	4-Chloroaniline	10000	U
87-68-3-----	Hexachlorobutadiene	10000	U
59-50-7-----	4-Chloro-3-Methylphenol	10000	U
91-57-6-----	2-Methylnaphthalene	10000	U
77-47-4-----	Hexachlorocyclopentadiene	10000	U
88-06-2-----	2,4,6-Trichlorophenol	10000	U
95-95-4-----	2,4,5-Trichlorophenol	25000	U
91-58-7-----	2-Chloronaphthalene	10000	U
88-74-4-----	2-Nitroaniline	25000	U
131-11-3-----	Dimethylphthalate	10000	U

(SECTION 11)

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NBF_226

Lab Name: CN GEOTECH

Contract: _____

Lab Code: _____ Case No.: 14325

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOILLab Sample ID: 232823Sample wt/vol: 1.00 (g/mL) GLab File ID: 232823Level: (low/med) MEDDate Received: 10/18/95% Moisture: 0 decanted: (Y/N) NDate Extracted: 10/19/95Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 10/23/95Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) Y pH: _____CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

208-96-8-----	Acenaphthylene	10000	U
606-20-2-----	2,6-Dinitrotoluene	10000	U
99-09-2-----	3-Nitroaniline	25000	U
83-32-9-----	Acenaphthene	10000	U
51-28-5-----	2,4-Dinitrophenol	25000	U
100-02-7-----	4-Nitrophenol	25000	U
132-64-9-----	Dibenzofuran	10000	U
121-14-2-----	2,4-Dinitrotoluene	10000	U
84-66-2-----	Diethylphthalate	10000	U
7005-72-3-----	4-Chlorophenyl-phenylether	10000	U
86-73-7-----	Fluorene	10000	U
100-01-6-----	4-Nitroaniline	25000	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	25000	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10000	U
103-33-3-----	Azobenzene	10000	U
101-55-3-----	4-Bromophenyl-phenylether	10000	U
118-74-1-----	Hexachlorobenzene	10000	U
87-86-5-----	Pentachlorophenol	25000	U
85-01-8-----	Phenanthrene	1600	J
120-12-7-----	Anthracene	10000	U
84-74-2-----	Di-n-Butylphthalate	10000	U
206-44-0-----	Fluoranthene	10000	U
129-00-0-----	Pyrene	9600	J
85-68-7-----	Butylbenzylphthalate	10000	U
91-94-1-----	3,3'-Dichlorobenzidine	10000	U
56-55-3-----	Benzo(a)Anthracene	8500	J
218-01-9-----	Chrysene	10000	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	2400	BJ
117-84-0-----	Di-n-Octyl Phthalate	10000	U
205-99-2-----	Benzo(b)Fluoranthene	10000	U
207-08-9-----	Benzo(k)Fluoranthene	10000	U
50-32-8-----	Benzo(a)Pyrene	26000	

1D

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: CN GEOTECH

Contract: _____

NBF_226

Lab Code: _____ Case No.: 14325

SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOILLab Sample ID: 232823Sample wt/vol: 1.00 (g/mL) GLab File ID: 232823Level: (low/med) MEDDate Received: 10/18/95% Moisture: 0 decanted: (Y/N) NDate Extracted: 10/19/95Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 10/23/95Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) Y pH: _____

CAS NO.

COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

193-39-5-----Indeno(1,2,3-cd)Pyrene

10000

U

53-70-3-----Dibenz(a,h)Anthracene

10000

U

191-24-2-----Benzo(g,h,i)Perylene

22000

(SECTION 11)

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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: CN GEOTECH

Contract: _____

NBF_226

Lab Code: _____ Case No.: 14325

SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOILLab Sample ID: 232823Sample wt/vol: 1.00 (g/mL) GLab File ID: 232823Level: (low/med) MEDDate Received: 10/18/95% Moisture: 0 decanted: (Y/N) NDate Extracted: 10/19/95Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 10/23/95Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) Y pH: _____Number TICs found: 7CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	7.20	96000	J
2.	Unknown	8.28	6000	J
3.	Unknown	8.97	9000	J
4.	Unknown	9.95	6000	J
5.	Unknown	10.57	6000	J
6.	Unknown Hydrocarbon	24.45	4000	J
7.	Unknown Hydrocarbons	32.07	10000000	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION III)

64
EPA SAMPLE NO.

NBF_227

Lab Name: CN GEOTECH Contract: _____

Lab Code: _____ Case No.: 14325 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 232824

Sample wt/vol: 30.20 (g/mL) G Lab File ID: 232824

Level: (low/med) LOW Date Received: 10/18/95

% Moisture: 14 decanted: (Y/N) N Date Extracted: 10/19/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/23/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

EPC Cleanup: (Y/N) Y pH: _____

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

62-75-9-----	N-Nitrosodimethylamine	380	U
62-53-3-----	Aniline	380	U
108-95-2-----	Phenol	380	U
111-44-4-----	bis(2-Chloroethyl) Ether	380	U
95-57-8-----	2-Chlorophenol	380	U
541-73-1-----	1,3-Dichlorobenzene	380	U
106-46-7-----	1,4-Dichlorobenzene	380	U
100-51-6-----	Benzyl Alcohol	380	U
95-50-1-----	1,2-Dichlorobenzene	380	U
95-48-7-----	2-Methylphenol	380	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	380	U
106-44-5-----	4-Methylphenol	380	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	380	U
67-72-1-----	Hexachloroethane	380	U
98-95-3-----	Nitrobenzene	380	U
78-59-1-----	Isophorone	380	U
88-75-5-----	2-Nitrophenol	380	U
105-67-9-----	2,4-Dimethylphenol	380	U
65-85-0-----	Benzoic Acid	950	U
111-91-1-----	bis(2-Chloroethoxy) Methane	380	U
120-83-2-----	2,4-Dichlorophenol	380	U
120-82-1-----	1,2,4-Trichlorobenzene	380	U
91-20-3-----	Naphthalene	380	U
106-47-8-----	4-Chloroaniline	380	U
87-68-3-----	Hexachlorobutadiene	380	U
59-50-7-----	4-Chloro-3-Methylphenol	380	U
91-57-6-----	2-Methylnaphthalene	380	U
77-47-4-----	Hexachlorocyclopentadiene	380	U
88-06-2-----	2,4,6-Trichlorophenol	380	U
95-95-4-----	2,4,5-Trichlorophenol	950	U
91-58-7-----	2-Chloronaphthalene	380	U
88-74-4-----	2-Nitroaniline	950	U
131-11-3-----	Dimethylphthalate	380	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION IV)

65
EPA SAMPLE NO.

Lab Name: <u>CN GEOTECH</u>	Contract: _____	NBF_227
Lab Code: _____	Case No.: <u>14325</u>	SAS No.: _____
		SDG No.: _____
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID: <u>232824</u>	
Sample wt/vol: <u>30.20</u> (g/mL) <u>G</u>	Lab File ID: <u>232824</u>	
Level: (low/med) <u>LOW</u>	Date Received: <u>10/18/95</u>	
% Moisture: <u>14</u> decanted: (Y/N) <u>N</u>	Date Extracted: <u>10/19/95</u>	
Concentrated Extract Volume: <u>500.0</u> (uL)	Date Analyzed: <u>10/23/95</u>	
Injection Volume: <u>1.0</u> (uL)	Dilution Factor: <u>1.0</u>	
GPC Cleanup: (Y/N) <u>Y</u>	pH: _____	

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

208-96-8-----Acenaphthylene	380	U
606-20-2-----2,6-Dinitrotoluene	450	
99-09-2-----3-Nitroaniline	950	U
83-32-9-----Acenaphthene	380	U
51-28-5-----2,4-Dinitrophenol	950	U
100-02-7-----4-Nitrophenol	950	U
132-64-9-----Dibenzofuran	380	U
121-14-2-----2,4-Dinitrotoluene	380	U
84-66-2-----Diethylphthalate	380	U
7005-72-3-----4-Chlorophenyl-phenylether	380	U
86-73-7-----Fluorene	380	U
100-01-6-----4-Nitroaniline	950	U
534-52-1-----4,6-Dinitro-2-Methylphenol	950	U
86-30-6-----N-Nitrosodiphenylamine (1)	380	U
103-33-3-----Azobenzene	380	U
101-55-3-----4-Bromophenyl-phenylether	380	U
118-74-1-----Hexachlorobenzene	380	U
87-86-5-----Pentachlorophenol	950	U
85-01-8-----Phenanthrene	380	U
120-12-7-----Anthracene	380	U
84-74-2-----Di-n-Butylphthalate	73	BJ
206-44-0-----Fluoranthene	380	U
129-00-0-----Pyrene	380	U
85-68-7-----Butylbenzylphthalate	380	U
91-94-1-----3,3'-Dichlorobenzidine	380	U
56-55-3-----Benzo(a)Anthracene	380	U
218-01-9-----Chrysene	380	U
117-81-7-----bis(2-Ethylhexyl)Phthalate	100	BJ
117-84-0-----Di-n-Octyl Phthalate	380	U
205-99-2-----Benzo(b)Fluoranthene	380	U
207-08-9-----Benzo(k)Fluoranthene	380	U
50-32-8-----Benzo(a)Pyrene	380	U

(SECTION IV)

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1D

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NBF_227

Lab Name: CN GEOTECH Contract: _____

Lab Code: _____ Case No.: 14325 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 232824

Sample wt/vol: 30.20 (g/mL) G Lab File ID: 232824

Level: (low/med) LOW Date Received: 10/18/95

% Moisture: 14 decanted: (Y/N) N Date Extracted: 10/19/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/23/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.

COMPOUND

193-39-5-----Indeno(1,2,3-cd)Pyrene

380

U

53-70-3-----Dibenz(a,h)Anthracene

380

U

191-24-2-----Benzo(g,h,i)Perylene

380

U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

67
EPA SAMPLE NO.

NBF_227

Lab Name: CN GEOTECH Contract: _____

Lab Code: _____ Case No.: 14325 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 232824

Sample wt/vol: 30.20 (g/mL) G Lab File ID: 232824

Level: (low/med) LOW Date Received: 10/18/95

% Moisture: 14 decanted: (Y/N) N Date Extracted: 10/19/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/23/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	7.13	230	J
2.	Unknown	8.23	310	J
3. 123-42-2	2-Pentanone, 4-hydroxy-4-met	8.99	200000	BJN
4.	Unknown	10.09	230	J
5. 1120-21-4	Undecane	13.24	730	JN
6.	Unknown Hydrocarbon	14.82	380	J
7. 57-11-4	Octadecanoic acid	26.01	230	JN
8. 4337-65-9	Hexanedioic acid, mono(2-eth	27.97	420	JN
9. 112-95-8	Eicosane	31.62	310	JN
10. 544-85-4	Dotriacontane	32.81	270	JN

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

98
EPA SAMPLE NO.

NBF_228

Lab Name: CN GEOTECH

Contract: _____

Lab Code: _____

Case No.: 14325

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 232825

Sample wt/vol: 30.00 (g/mL) G

Lab File ID: 232825

Level: (low/med) LOW

Date Received: 10/18/95

% Moisture: 8 decanted: (Y/N) N

Date Extracted: 10/19/95

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 10/23/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: _____

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

62-75-9-----	N-Nitrosodimethylamine	360	U
62-53-3-----	Aniline	360	U
108-95-2-----	Phenol	360	U
111-44-4-----	bis(2-Chloroethyl) Ether	360	U
95-57-8-----	2-Chlorophenol	360	U
541-73-1-----	1,3-Dichlorobenzene	360	U
106-46-7-----	1,4-Dichlorobenzene	360	U
100-51-6-----	Benzyl Alcohol	360	U
95-50-1-----	1,2-Dichlorobenzene	360	U
95-48-7-----	2-Methylphenol	360	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	360	U
106-44-5-----	4-Methylphenol	360	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	360	U
67-72-1-----	Hexachloroethane	360	U
98-95-3-----	Nitrobenzene	360	U
78-59-1-----	Isophorone	360	U
88-75-5-----	2-Nitrophenol	360	U
105-67-9-----	2,4-Dimethylphenol	360	U
65-85-0-----	Benzoic Acid	900	U
111-91-1-----	bis(2-Chloroethoxy)Methane	360	U
120-83-2-----	2,4-Dichlorophenol	360	U
120-82-1-----	1,2,4-Trichlorobenzene	360	U
91-20-3-----	Naphthalene	360	U
106-47-8-----	4-Chloroaniline	360	U
87-68-3-----	Hexachlorobutadiene	360	U
59-50-7-----	4-Chloro-3-Methylphenol	360	U
91-57-6-----	2-Methylnaphthalene	360	U
77-47-4-----	Hexachlorocyclopentadiene	360	U
88-06-2-----	2,4,6-Trichlorophenol	360	U
95-95-4-----	2,4,5-Trichlorophenol	900	U
91-58-7-----	2-Chloronaphthalene	360	U
88-74-4-----	2-Nitroaniline	900	U
131-11-3-----	Dimethylphthalate	360	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION IV)

99
EPA SAMPLE NO.

Lab Name: CN GEOTECH

Contract: _____

NBF_228

Lab Code: _____ Case No.: 14325

SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 232825

Sample wt/vol: 30.00 (g/mL) G

Lab File ID: 232825

Level: (low/med) LOW

Date Received: 10/18/95

% Moisture: 8 decanted: (Y/N) N

Date Extracted: 10/19/95

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 10/23/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

208-96-8-----	Acenaphthylene	360	U
606-20-2-----	2,6-Dinitrotoluene	360	U
99-09-2-----	3-Nitroaniline	900	U
83-32-9-----	Acenaphthene	360	U
51-28-5-----	2,4-Dinitrophenol	900	U
100-02-7-----	4-Nitrophenol	900	U
132-64-9-----	Dibenzofuran	360	U
121-14-2-----	2,4-Dinitrotoluene	360	U
84-66-2-----	Diethylphthalate	360	U
7005-72-3-----	4-Chlorophenyl-phenylether	360	U
86-73-7-----	Fluorene	360	U
100-01-6-----	4-Nitroaniline	900	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	900	U
86-30-6-----	N-Nitrosodiphenylamine (1)	360	U
103-33-3-----	Azobenzene	360	U
101-55-3-----	4-Bromophenyl-phenylether	360	U
118-74-1-----	Hexachlorobenzene	360	U
87-86-5-----	Pentachlorophenol	900	U
85-01-8-----	Phenanthrene	360	U
120-12-7-----	Anthracene	360	U
84-74-2-----	Di-n-Butylphthalate	51	BJ
206-44-0-----	Fluoranthene	360	U
129-00-0-----	Pyrene	360	U
85-68-7-----	Butylbenzylphthalate	360	U
91-94-1-----	3,3'-Dichlorobenzidine	360	U
56-55-3-----	Benzo(a)Anthracene	360	U
218-01-9-----	Chrysene	360	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	91	BJ
117-84-0-----	Di-n-Octyl Phthalate	360	U
205-99-2-----	Benzo(b)Fluoranthene	360	U
207-08-9-----	Benzo(k)Fluoranthene	360	U
50-32-8-----	Benzo(a)Pyrene	360	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION IV)

100
EPA SAMPLE NO.

Lab Name: CN GEOTECH Contract: _____

NBF_228

Lab Code: _____ Case No.: 14325 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 232825

Sample wt/vol: 30.00 (g/mL) G

Lab File ID: 232825

Level: (low/med) LOW

Date Received: 10/18/95

% Moisture: 8 decanted: (Y/N) N

Date Extracted: 10/19/95

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 10/23/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

PC Cleanup: (Y/N) Y pH: _____

CAS NO.

COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

193-39-5-----	Indeno(1,2,3-cd)Pyrene	360	U
53-70-3-----	Dibenz(a,h)Anthracene	360	U
191-24-2-----	Benzo(g,h,i)Perylene	360	U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

(SECTION IV)

101
EPA SAMPLE NO.

Lab Name: CN GEOTECH

Contract: _____

NBF_228

Lab Code: _____ Case No.: 14325

SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 232825

Sample wt/vol: 30.00 (g/mL) G

Lab File ID: 232825

Level: (low/med) LOW

Date Received: 10/18/95

% Moisture: 8 decanted: (Y/N) N

Date Extracted: 10/19/95

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 10/23/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

Number TICs found: 9

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123-42-2	2-Pentanone, 4-hydroxy-4-met	8.87	63000	BJN
2.	Unknown	10.07	140	J
3.	Unknown	19.17	400	J
4. 123-79-5	Hexanedioic acid, dioctyl es	27.99	360	BJN
5.	Unknown Phthalate	31.17	180	J
6.	Unknown Phthalate	31.36	180	J
7.	Unknown Hydrocarbon	31.62	140	J
8.	Unknown	36.64	940	J
9. 56554-75-7	7-Heptadecyne, 17-chloro-	36.86	2200	JN

(SECTION IV)

131

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: CN GEOTECH

Contract: _____

NBF_231

Lab Code: _____ Case No.: 14325 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 232826

Sample wt/vol: 1.00 (g/mL) G Lab File ID: 232826

Level: (low/med) MED Date Received: 10/18/95

% Moisture: 2 decanted: (Y/N) N Date Extracted: 10/19/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/23/95

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

62-75-9-----	N-Nitrosodimethylamine	41000	U
62-53-3-----	Aniline	41000	U
108-95-2-----	Phenol	41000	U
111-44-4-----	bis(2-Chloroethyl) Ether	41000	U
95-57-8-----	2-Chlorophenol	41000	U
541-73-1-----	1,3-Dichlorobenzene	41000	U
106-46-7-----	1,4-Dichlorobenzene	41000	U
100-51-6-----	Benzyl Alcohol	41000	U
95-50-1-----	1,2-Dichlorobenzene	41000	U
95-48-7-----	2-Methylphenol	41000	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	41000	U
106-44-5-----	4-Methylphenol	41000	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	41000	U
67-72-1-----	Hexachloroethane	41000	U
98-95-3-----	Nitrobenzene	41000	U
78-59-1-----	Isophorone	41000	U
88-75-5-----	2-Nitrophenol	41000	U
105-67-9-----	2,4-Dimethylphenol	41000	U
65-85-0-----	Benzoic Acid	100000	U
111-91-1-----	bis(2-Chloroethoxy) Methane	41000	U
120-83-2-----	2,4-Dichlorophenol	41000	U
120-82-1-----	1,2,4-Trichlorobenzene	41000	U
91-20-3-----	Naphthalene	41000	U
106-47-8-----	4-Chloroaniline	41000	U
87-68-3-----	Hexachlorobutadiene	41000	U
59-50-7-----	4-Chloro-3-Methylphenol	41000	U
91-57-6-----	2-Methylnaphthalene	41000	U
77-47-4-----	Hexachlorocyclopentadiene	41000	U
88-06-2-----	2,4,6-Trichlorophenol	41000	U
95-95-4-----	2,4,5-Trichlorophenol	100000	U
91-58-7-----	2-Chloronaphthalene	41000	U
88-74-4-----	2-Nitroaniline	100000	U
131-11-3-----	Dimethylphthalate	41000	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NBF_231

Lab Name: CN GEOTECH

Contract: _____

Lab Code: _____ Case No.: 14325 SAS No.: _____ SDG No.: _____Matrix: (soil/water) SOILLab Sample ID: 232826Sample wt/vol: 1.00 (g/mL) GLab File ID: 232826Level: (low/med) MEDDate Received: 10/18/95% Moisture: 2 decanted: (Y/N) NDate Extracted: 10/19/95Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 10/23/95Injection Volume: 2.0 (uL)Dilution Factor: 4.0GPC Cleanup: (Y/N) Y pH: _____

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

208-96-8-----	Acenaphthylene	41000	U
606-20-2-----	2,6-Dinitrotoluene	41000	U
99-09-2-----	3-Nitroaniline	100000	U
83-32-9-----	Acenaphthene	41000	U
51-28-5-----	2,4-Dinitrophenol	100000	U
100-02-7-----	4-Nitrophenol	100000	U
132-64-9-----	Dibenzofuran	41000	U
121-14-2-----	2,4-Dinitrotoluene	41000	U
84-66-2-----	Diethylphthalate	41000	U
7005-72-3-----	4-Chlorophenyl-phenylether	41000	U
86-73-7-----	Fluorene	41000	U
100-01-6-----	4-Nitroaniline	100000	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	100000	U
86-30-6-----	N-Nitrosodiphenylamine (1)	41000	U
103-33-3-----	Azobenzene	41000	U
101-55-3-----	4-Bromophenyl-phenylether	41000	U
118-74-1-----	Hexachlorobenzene	41000	U
87-86-5-----	Pentachlorophenol	100000	U
85-01-8-----	Phenanthrene	41000	U
120-12-7-----	Anthracene	41000	U
84-74-2-----	Di-n-Butylphthalate	41000	U
206-44-0-----	Fluoranthene	41000	U
129-00-0-----	Pyrene	100000	U
85-68-7-----	Butylbenzylphthalate	41000	U
91-94-1-----	3,3'-Dichlorobenzidine	41000	U
56-55-3-----	Benzo(a)Anthracene	41000	U
218-01-9-----	Chrysene	41000	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	41000	U
117-84-0-----	Di-n-Octyl Phthalate	41000	U
205-99-2-----	Benzo(b)Fluoranthene	41000	U
207-08-9-----	Benzo(k)Fluoranthene	41000	U
50-32-8-----	Benzo(a)Pyrene	78000	U

(SECTION 1A)

 1D
 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NBF_231

Lab Name: CN GEOTECH

Contract: _____

Lab Code: _____ Case No.: 14325

SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOILLab Sample ID: 232826Sample wt/vol: 1.00 (g/mL) GLab File ID: 232826Level: (low/med) MEDDate Received: 10/18/95% Moisture: 2 decanted: (Y/N) NDate Extracted: 10/19/95Concentrated Extract Volume: 500.0 (uL)Date Analyzed: 10/23/95Injection Volume: 2.0 (uL)Dilution Factor: 4.0GPC Cleanup: (Y/N) Y pH: _____

CAS NO.

COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

193-39-5-----Indeno(1,2,3-cd)Pyrene

41000

U

53-70-3-----Dibenz(a,h)Anthracene

41000

U

191-24-2-----Benzo(g,h,i)Perylene

27000

J

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SECTION 11

EPA SAMPLE NO.

NBF_231

Lab Name: CN GEOTECH Contract: _____

Lab Code: _____ Case No.: 14325 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 232826

Sample wt/vol: 1.00 (g/mL) G Lab File ID: 232826

Level: (low/med) MED Date Received: 10/18/95

% Moisture: 2 decanted: (Y/N) N Date Extracted: 10/19/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/23/95

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: _____

Number TICs found: 14

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown Hydrocarbon	21.35	41000	J
2.	Unknown Hydrocarbon	22.44	24000	J
3.	Unknown Hydrocarbon	23.49	61000	J
4. 112-95-8	Eicosane	24.50	130000	JN
5.	Unknown	25.21	90000	J
6.	Unknown Hydrocarbon	25.47	200000	J
7.	Unknown Hydrocarbon	27.27	120000	J
8.	Unknown Hydrocarbon	28.12	150000	J
9.	Unknown Hydrocarbon	29.67	220000	J
10.	Unknown Hydrocarbon	30.39	210000	J
11.	Unknown Hydrocarbon	31.06	170000	J
12.	Unknown Hydrocarbon	31.69	160000	J
13.	Unknown Hydrocarbon	32.87	160000	J
14.	Unknown Hydrocarbon	34.21	150000	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION 11A)

170

EPA SAMPLE NO.

Lab Name: CN GEOTECH

Contract: _____

NBF_232

Lab Code: _____

Case No.: 14325

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 232827

Sample wt/vol: 1.00 (g/mL) G

Lab File ID: 232827

Level: (low/med) MED

Date Received: 10/18/95

% Moisture: 2 decanted: (Y/N) N

Date Extracted: 10/19/95

Concentrated Extract Volume: 500.0 (uL)

Date Analyzed: 10/23/95

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

PC Cleanup: (Y/N) Y

pH: _____

CAS NO.

COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

62-75-9-----	N-Nitrosodimethylamine	10000	U
62-53-3-----	Aniline	10000	U
108-95-2-----	Phenol	10000	U
111-44-4-----	bis(2-Chloroethyl) Ether	10000	U
95-57-8-----	2-Chlorophenol	10000	U
541-73-1-----	1,3-Dichlorobenzene	10000	U
106-46-7-----	1,4-Dichlorobenzene	10000	U
100-51-6-----	Benzyl Alcohol	10000	U
95-50-1-----	1,2-Dichlorobenzene	10000	U
95-48-7-----	2-Methylphenol	10000	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	10000	U
106-44-5-----	4-Methylphenol	10000	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	10000	U
67-72-1-----	Hexachloroethane	10000	U
98-95-3-----	Nitrobenzene	10000	U
78-59-1-----	Isophorone	10000	U
88-75-5-----	2-Nitrophenol	10000	U
105-67-9-----	2,4-Dimethylphenol	10000	U
65-85-0-----	Benzoic Acid	26000	U
111-91-1-----	bis(2-Chloroethoxy)Methane	10000	U
120-83-2-----	2,4-Dichlorophenol	10000	U
120-82-1-----	1,2,4-Trichlorobenzene	10000	U
91-20-3-----	Naphthalene	10000	U
106-47-8-----	4-Chloroaniline	10000	U
87-68-3-----	Hexachlorobutadiene	10000	U
59-50-7-----	4-Chloro-3-Methylphenol	10000	U
91-57-6-----	2-Methylnaphthalene	10000	U
77-47-4-----	Hexachlorocyclopentadiene	10000	U
88-06-2-----	2,4,6-Trichlorophenol	10000	U
95-95-4-----	2,4,5-Trichlorophenol	26000	U
91-58-7-----	2-Chloronaphthalene	10000	U
88-74-4-----	2-Nitroaniline	26000	U
131-11-3-----	Dimethylphthalate	10000	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

(SECTION 11)

171
EPA SAMPLE NO.

Lab Name: <u>CN GEOTECH</u>	Contract: _____	NBF_232
Lab Code: _____	Case No.: <u>14325</u>	SAS No.: _____
		SDG No.: _____
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID: <u>232827</u>	
Sample wt/vol: <u>1.00</u> (g/mL) <u>G</u>	Lab File ID: <u>232827</u>	
Level: (low/med) <u>MED</u>	Date Received: <u>10/18/95</u>	
% Moisture: <u>2</u> decanted: (Y/N) <u>N</u>	Date Extracted: <u>10/19/95</u>	
Concentrated Extract Volume: <u>500.0</u> (uL)	Date Analyzed: <u>10/23/95</u>	
Injection Volume: <u>2.0</u> (uL)	Dilution Factor: <u>1.0</u>	
GPC Cleanup: (Y/N) <u>Y</u>	pH: _____	

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

208-96-8-----Acenaphthylene	10000	U
606-20-2-----2,6-Dinitrotoluene	10000	U
99-09-2-----3-Nitroaniline	26000	U
83-32-9-----Acenaphthene	10000	U
51-28-5-----2,4-Dinitrophenol	26000	U
100-02-7-----4-Nitrophenol	26000	U
132-64-9-----Dibenzofuran	10000	U
121-14-2-----2,4-Dinitrotoluene	10000	U
84-66-2-----Diethylphthalate	10000	U
7005-72-3-----4-Chlorophenyl-phenylether	10000	U
86-73-7-----Fluorene	10000	U
100-01-6-----4-Nitroaniline	26000	U
534-52-1-----4,6-Dinitro-2-Methylphenol	26000	U
86-30-6-----N-Nitrosodiphenylamine (1)	10000	U
103-33-3-----Azobenzene	10000	U
101-55-3-----4-Bromophenyl-phenylether	10000	U
118-74-1-----Hexachlorobenzene	10000	U
87-86-5-----Pentachlorophenol	26000	U
85-01-8-----Phenanthrene	10000	U
120-12-7-----Anthracene	10000	U
84-74-2-----Di-n-Butylphthalate	10000	U
206-44-0-----Fluoranthene	10000	U
129-00-0-----Pyrene	8800	J
85-68-7-----Butylbenzylphthalate	10000	U
91-94-1-----3,3'-Dichlorobenzidine	10000	U
56-55-3-----Benzo(a)Anthracene	10000	U
218-01-9-----Chrysene	10000	U
117-81-7-----bis(2-Ethylhexyl)Phthalate	1400	BJ
117-84-0-----Di-n-Octyl Phthalate	10000	U
205-99-2-----Benzo(b)Fluoranthene	10000	U
207-08-9-----Benzo(k)Fluoranthene	10000	U
50-32-8-----Benzo(a)Pyrene	31000	

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

172
EPA SAMPLE NO.

Lab Name: CN GEOTECH Contract: _____

NBF_232

Lab Code: _____ Case No.: 14325 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 232827

Sample wt/vol: 1.00 (g/mL) G Lab File ID: 232827

Level: (low/med) MED Date Received: 10/18/95

% Moisture: 2 decanted: (Y/N) N Date Extracted: 10/19/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/23/95

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.

COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

193-39-5-----	Indeno(1,2,3-cd)Pyrene	10000	U
53-70-3-----	Dibenz(a,h)Anthracene	10000	U
191-24-2-----	Benzo(g,h,i)Perylene	26000	

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

173
EPA SAMPLE NO.

Lab Name: CN GEOTECH Contract: _____

Lab Code: _____ Case No.: 14325 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 232827

Sample wt/vol: 1.00 (g/mL) G Lab File ID: 232827

Level: (low/med) MED Date Received: 10/18/95

% Moisture: 2 decanted: (Y/N) N Date Extracted: 10/19/95

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/23/95

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	7.27	4100	J
2.	Unknown Hydrocarbon	21.34	5100	J
3.	Unknown Hydrocarbons	32.84	14000000	J